TECHNOLOGY DEPT.

OCTOBER, 1952

Telephone Engineer and Management

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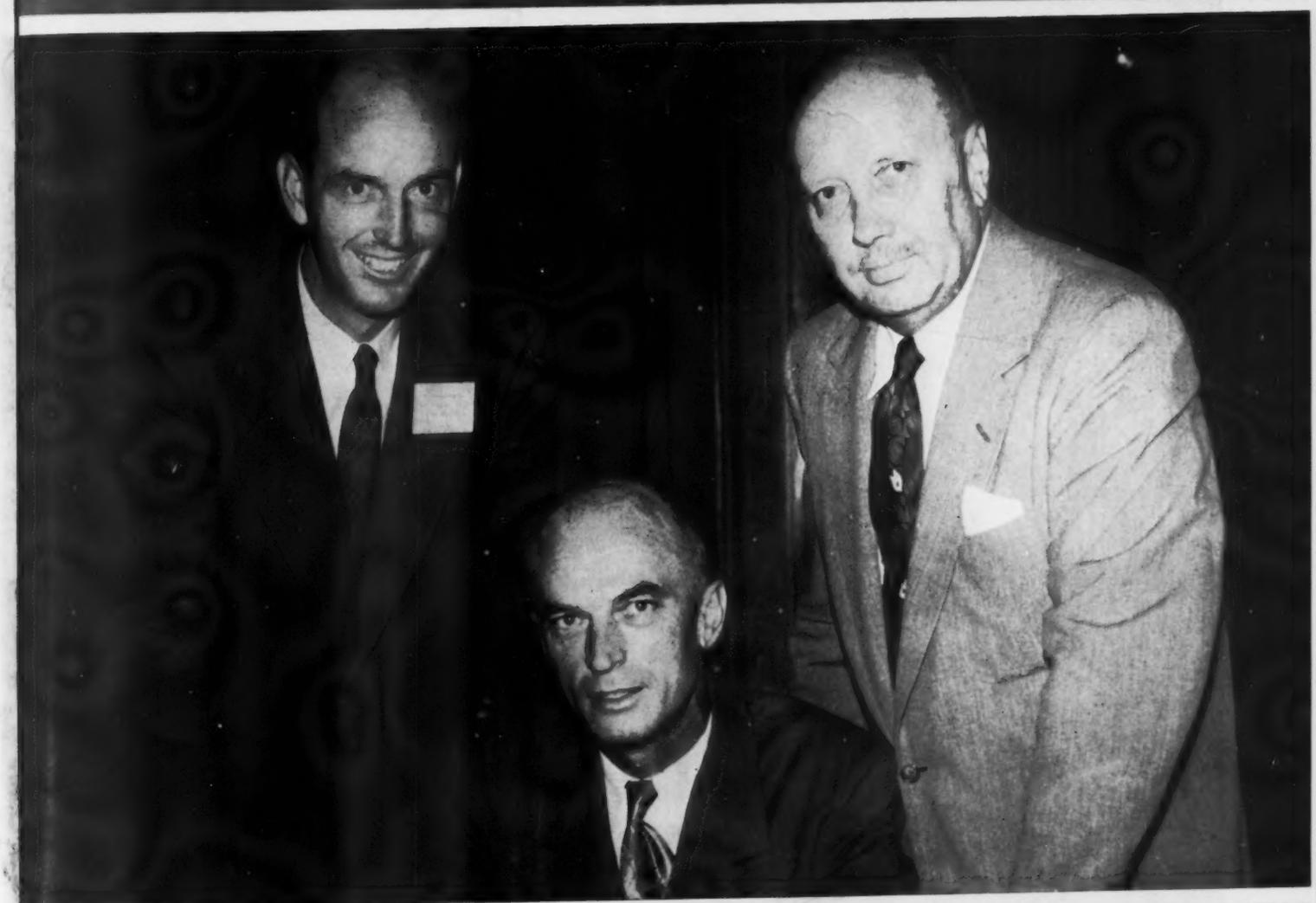
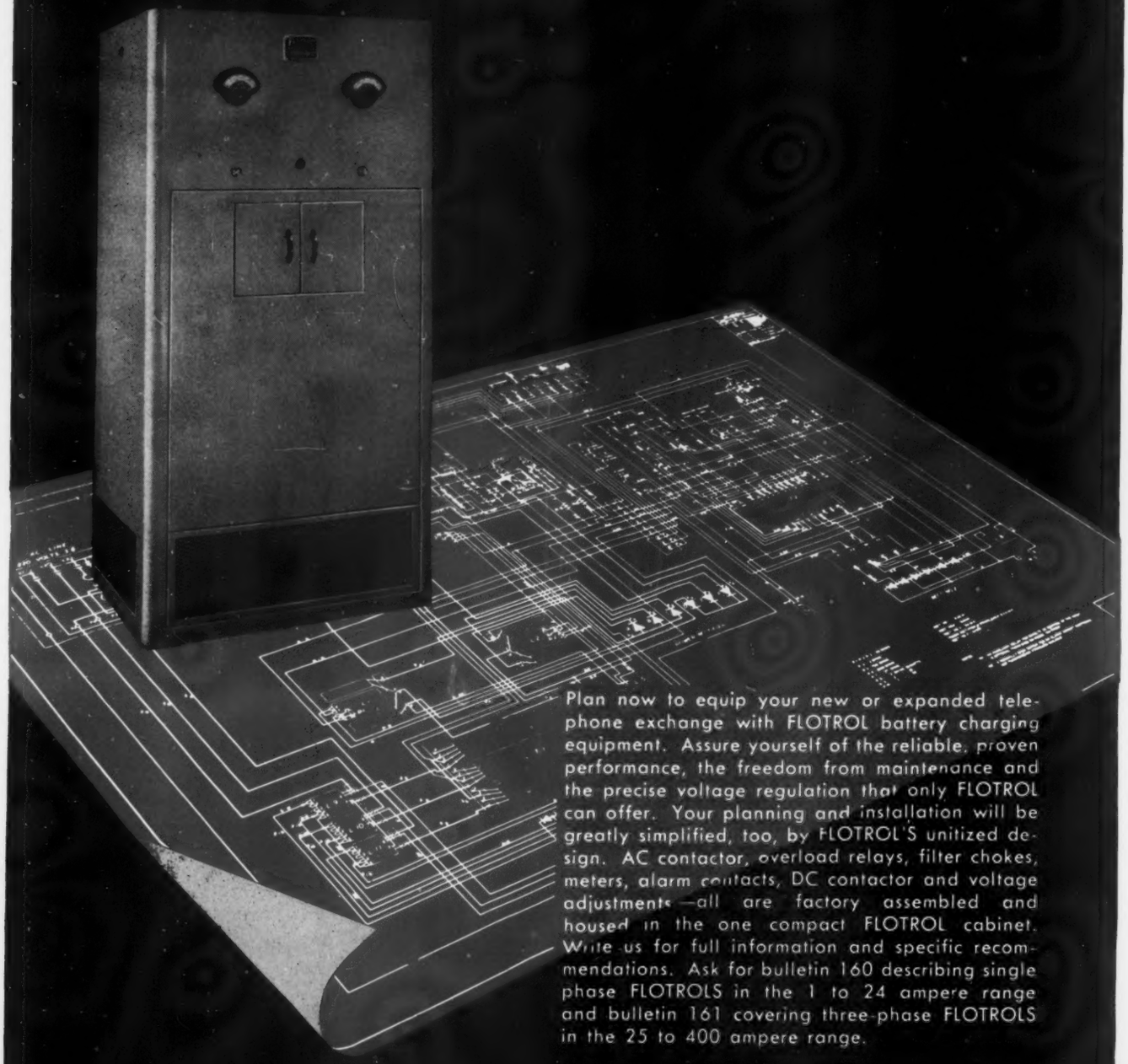


THE NATIONAL TELEPHONE MAGAZINE

Featuring In This Issue—

- USITA's 55th Annual Meeting, *by John G. Reynolds*
- USITA Conference Reports
- Washington Bureau Reports, *by Roland Davies and Fred Henck*
- Industry News Briefs • Small Company Talk

BLUEPRINT
for better service



Plan now to equip your new or expanded telephone exchange with FLOTROL battery charging equipment. Assure yourself of the reliable, proven performance, the freedom from maintenance and the precise voltage regulation that only FLOTROL can offer. Your planning and installation will be greatly simplified, too, by FLOTROL'S unitized design. AC contactor, overload relays, filter chokes, meters, alarm contacts, DC contactor and voltage adjustments—all are factory assembled and housed in the one compact FLOTROL cabinet. Write us for full information and specific recommendations. Ask for bulletin 160 describing single phase FLOTROLS in the 1 to 24 ampere range and bulletin 161 covering three-phase FLOTROLS in the 25 to 400 ampere range.

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PARTNERS IN DEPENDABILITY
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LASTING POWER... CHOOSE PLANTÉ

Gould Planté—
The Aristocrat of
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You may be able to save up to 50% on maintenance costs throughout the life of your stationary batteries through the use of the Gould Plus-Performance Plan. Write Gould Battery Information Headquarters for full details.

Pure lead positive plates make Gould Planté batteries practically last forever. There's no antimonial impurities to contaminate negative plates and thus shorten battery life. Also, a huge reserve of pure lead continually replenishes spent active material in the positive plates. For amazing lasting power, there's *nothing* like Planté.

GOULD *Industrial Batteries*

GOULD-NATIONAL BATTERIES, INC., TRENTON 7, N. J.

Always Use Gould-National Automobile and Truck Batteries

Across The Editor's Desk

JOHN P. BOYLAN, chairman of the board of the Rochester (N. Y.) Telephone Corp., and author of "Tales of the Nineties" that appeared in copyrighted serial form in our Fortnightly TELEPHONE ENGINEER has received glowing critics approval on the new privately printed edition printed and bound by the Lakeside Press, R. R. Donnelly & Sons Company, Chicago. In the foreword Mr. Boylan makes grateful acknowledgement to LOREN M. BERRY, Dayton, Ohio, for gathering together the complete stories by Mr. Boylan and making possible the publication of the book. The volume is a collectors item, beautifully bound and printed.

• • •

MARION CLAY, the new manager of the Lufkin (Tex.) Telephone Co., was the front cover picture of the September issue of Texas Telephone Topics, published by the Texas Telephone Association. Marion's dad was connected with the San Angelo (Tex.) Telephone Company for 47 years until his death. Jack Haley, Texas association executive secretary, did a bang up job of reporting in his Topics. Marion succeeds Jean Shotwell, retired.

• • •

It was nice of our many friends in the industry to drop by our rooms during the National convention last week. Too, we enjoyed having John S. Reed, Jr., Lincoln, Nebr. whose writings appear exclusively in our magazines, attend the convention as our guest.

• • •

DANIEL B. CORMAN, until October 1 an assistant to Claude S. Wickard, administrator of REA, has resigned and returned to his home in Augusta, Ky., to work actively with the Northeastern Tel. Co. of which he is part owner. Although we have not agreed editorially with some of the REA's principles we have always had the highest regard for Mr. Corman and think the Independent telephone industry profited by having a man of his integrity in the position he filled with REA.

The National Telephone Magazine

Telephone Engineer and Management

OCTOBER, 1952 VOL. 56, NUMBER 10

Editor, RAY W. SMITH • *Advertising Director,* ROY F. SMITH
Managing Editor, JOHN G. REYNOLDS
Financial Editor, ALBERT W. KIMBER
Production Manager, VIRGINIA McCOLLUM
Advertising Manager, DON C. SORENSEN
Washington Bureau, ROLAND C. DAVIES *and* FRED HENCK
Circulation Manager, VIOLET ALTMEYER

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FRONT COVER

Arkansas Telephone Association held its annual convention Sept. 15-16 at the Arlington Hotel, Hot Springs. Association officers shown on front cover are (l. to r.): Sec.-Treas., H. R. Wilbourn, Jr., Sheridan; Pres., Jack Tucker, Crossett; 2nd Vice Pres., R. L. Bankson, Little Rock. (1st Vice Pres., T. B. Hollingsworth, Stuttgart, was absent.)

Published monthly by TELEPHONE ENGINEER Publishing Corp.
7720 Sheridan Road - Phone Rogers Park 4-3040 - Chicago 26. Illinois
West Coast Representatives. BRAND & BRAND
1052 West 6th Street. Los Angeles. California
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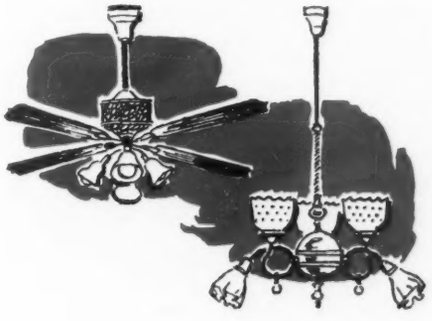
VOLUME 56, NUMBER 10. Published monthly by Telephone Engineer Publishing Corporation. Office of Publication, Pontiac, Illinois. Executive and Editorial Office, 7720 Sheridan Road, Chicago, Illinois. Subscriptions: U. S., Cuba, Mexico, $3.00 per year; Canada $3.50; in all other countries, $5.00. Single copies, U.S.A. 35 cents. Entered as second class matter at the post office at Pontiac, Illinois, under the act of March 3, 1879.

GraybaR TELEPHONE NEWS

WHEN CARBON FILAMENTS AND CHOKER COLLARS GRACED THE CENTRAL OFFICE—

As calls picked up in the late afternoon and the sun sank lower and lower, the supervisor's glare at the carbon filament lamps reminded one of the boys to flip them on. Easier than trimming and filling kerosene lamps . . . and easier to see by than gas light, these flickering units were still a far cry from efficient light produced by modern G-E lamps.

Incandescent lamps of all types . . . fluorescent lamps in all color values . . . germicidal lamps for rest rooms and public rooms . . . infra-red lamps for heat and drying . . . over 10,000 different kinds in all — they're conveniently available from your near-by Graybar office.

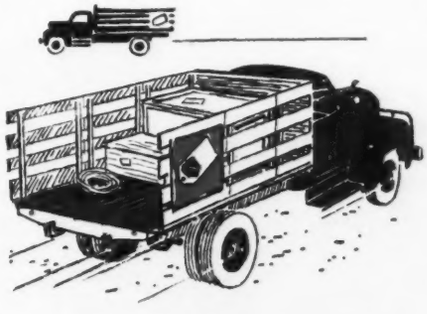


HOW OFFICE COMFORT HAS IMPROVED!

At the turn of the century, Graybar had sold thousands of these ornate fixtures and fans to independent telephone companies all over the nation. As lighting and ventilation methods have improved in the intervening years, Graybar has consistently distributed progressively better and more efficient equipment, until today, we offer you the most complete selection of shop and office lighting items available from any one source. The same is true of ventilating and air-conditioning equipment made by well-known names such as ILG and Remington.

EYE-EASE TO ICE WATER: SYMBOLS OF GRAYBAR'S RANGE OF SERVICE

From lamps and lighting fixtures to air conditioning and drinking water supply — these are just a few of the more than 100,000 items distributed by Graybar. Graybar can supply *all* of your telephone needs quickly and conveniently through its nation-wide system of offices and warehouses. In addition to central station equipment, you can also get wire, cable and other pole-line materials for outside construction and maintenance. Make your next order read "via Graybar" and you'll save time and paperwork . . . and you'll get *what* you need *when* you want it. 285-2210



COOL WATER AT A TOUCH OF A FINGERTIP

Fresh, cool drinking water provided by the Graybar-distributed line of Cordley electric water coolers has long since replaced the tin dipper and bucket once found in telephone offices. Available from your local Graybar office, they come in a wide variety of sizes to match the needs of any office.

Call Graybar first for...

GRAYBAR ELECTRIC CO., INC.
Executive Offices:
Graybar Building, New York 17, N. Y.
IN OVER 100 PRINCIPAL CITIES

USITA Pres. L. W. HILL
—Took a "look at the industry."

55th Annual Convention of U. S. Independent Telephone Association Sets record as greatest forum of the year for keeping up with what is going on.

IN THIS ISSUE

USITA Exec. V. P. CLYDE BAILEY
—reported on Washington affairs.

E. J. WARD, chairman, USITA Accounting Committee.

R. J. RIORDAN, Chairman, USITA Commercial Committee.

W. M. DRIGGS, chairman, USITA Plant Committee.

GEORGE ROSE, chairman, USITA Traffic Committee.

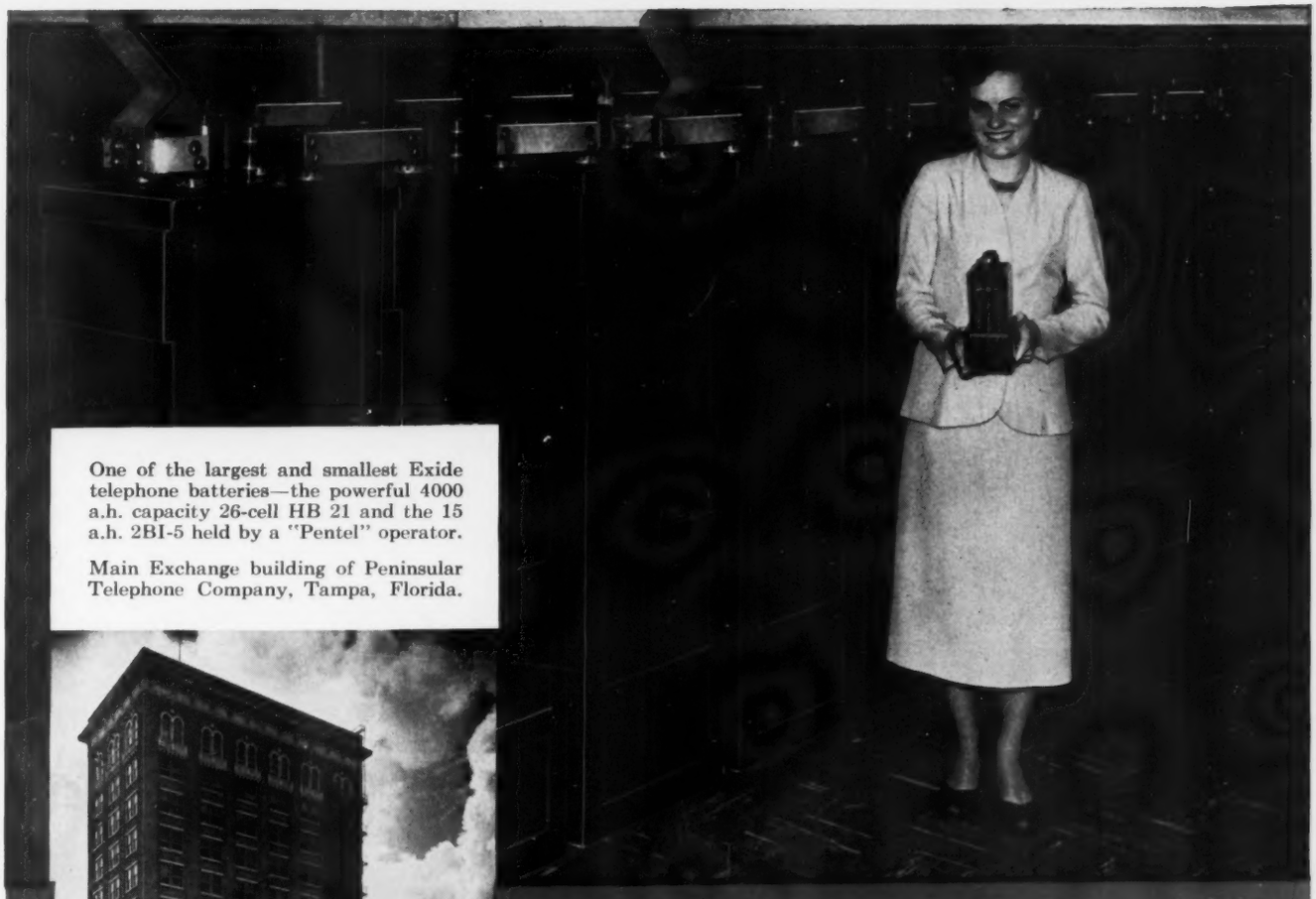
THIS ISSUE of your TELEPHONE ENGINEER & MANAGEMENT practically wrote itself. Sure, we handled the mechanical details—wrote some copy, took some pictures—but the real copy, the real meat of this issue was prepared by the speakers at the conferences and general sessions of the 55th Annual Convention of the United States Independent Telephone Association, October 13, 14, and 15 at Chicago's Conrad Hilton Hotel. They made the job easy for us. And they did a lot more—they made the 55th Annual USITA Convention into a meeting that proved to be the *greatest forum* of the year for "*keeping up with what's going on.*"

MANY INDUSTRY members were responsible for the success of the USITA meeting. USITA President L. W. HILL; Executive Vice President CLYDE S. BAILEY; Traffic Committee Chairman GEORGE W. ROSE; Commercial Committee Chairman RAY J. RIORDAN; Accounting Committee Chairman E. J. WARD; Plant Committee Chairman W. M. DRIGGS; Pioneer President MERLE M. HALE; F. M. PARSONS, chairman, Manufacturers' Exhibit Committee, and JOHN BROWN COOK, chairman, Banquet and Entertainment Committee, were among the many who worked hard and long to make the convention the success it was. . . .

THE SUCCESS of their efforts was emphasized by a friend of ours who said—"*I must travel thousands of miles to attend this convention and I consider it worth all the cost. . . . I will go home from here with many new and valuable ideas and with an up-to-date knowledge of many ramifications of the business which I could not obtain any other way. . . . All of that will be worth a great deal of money both to me and my company. . . .*"

THAT STATEMENT sort of summarizes the reactions of those who attended the meeting. If you were unable to make it this year, we hope you'll be on hand next year for we know there is no annual gathering of telephone people as comprehensive in the breadth of the field covered or as instructive from the standpoint both of discussions and exhibits as the national convention of the United States Independent Telephone Association.

SEE YOU NEXT MONTH
YOUR EDITORS



One of the largest and smallest Exide telephone batteries—the powerful 4000 a.h. capacity 26-cell HB 21 and the 15 a.h. 2BI-5 held by a "Pentel" operator.

Main Exchange building of Peninsular Telephone Company, Tampa, Florida.

LARGEST TYPE TELEPHONE BATTERY BUILT BY Exide INSTALLED IN MAIN EXCHANGE OF "PENTEL"

This giant 26-unit Exide, recently installed by the Peninsular Telephone Company, has a capacity of 4000 ampere hours at the 8-hour rate. In times of emergency the batteries will instantly and automatically take over the main exchange and operate it for five hours.

The new battery has twice the capacity of the batteries it replaced. Furthermore, because of its compactness, another giant 26-unit Exide can be installed in the same room when or if needed. A similar installation is in the company's St. Petersburg Exchange.

The company states that in addition to providing emergency power, the Exide batteries "will improve the system by eliminating noise from the lines, and will last for many years with fewer cells to maintain."

For dependable performance and economy, use Exide Batteries for all central office and private branch exchange equipment.

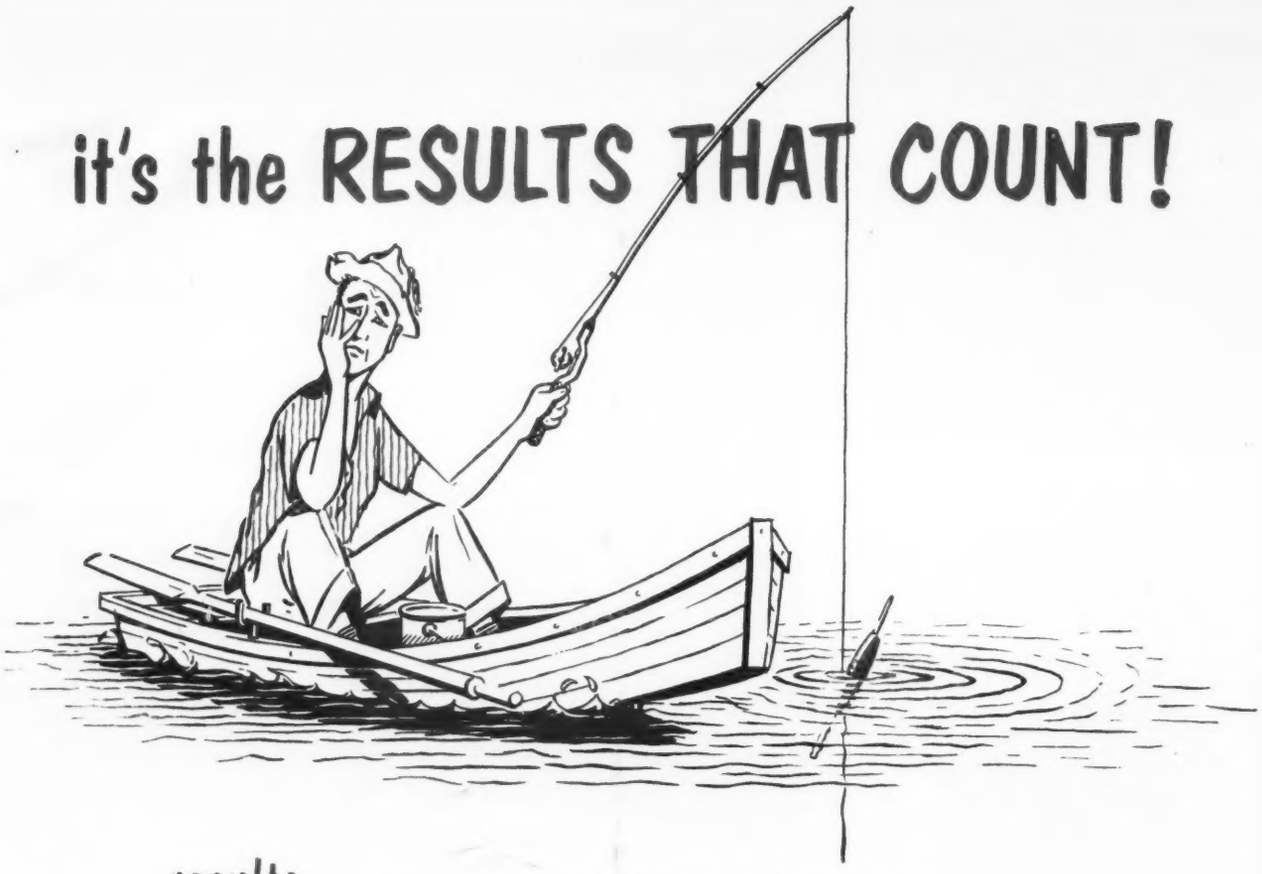
THE ELECTRIC STORAGE BATTERY COMPANY · Philadelphia 2

Exide Batteries of Canada, Limited, Toronto

"Exide" *Reg. Trade-mark U.S. Pat. Off.*

1888 . . . DEPENDABLE BATTERIES FOR 64 YEARS . . . 1952

it's the RESULTS THAT COUNT!



results . . . "— *the day's limit, and the big ones didn't get away.*"

Our customers have been assured the **maximum revenue** possible from every directory —thus allowing extra profits for operating expenses and dividends.

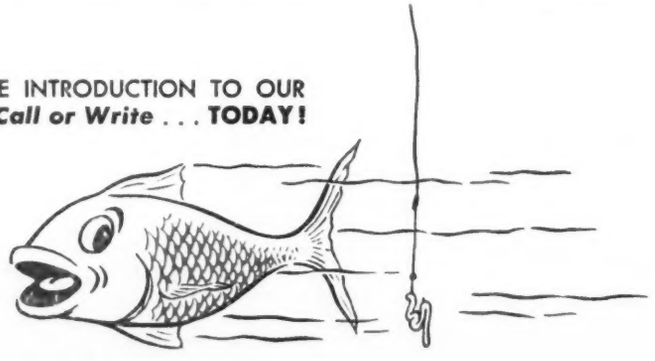
results . . . "— *no limitations to what a fisherman will endure to catch a fish.*"

There have been no limitations to which our Company has undergone to continue the **best public relations** between the telephone companies and their subscribers. A high degree of accuracy is our constant aim for every directory.

results . . . "— *not mere fisherman's luck, but the use of proper equipment.*"

Mere luck has not been responsible for the satisfactory results produced by us during the past 42 years. These results have been attained because we have been continually geared to the modern trends and patterns—**equipped with the know-how** which has made us specialists in our field.

FOR COMPLETE INTRODUCTION TO OUR SERVICES . . . ***Call or Write*** . . . **TODAY!**



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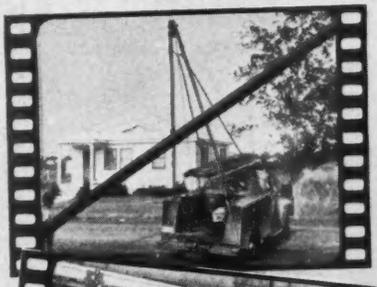
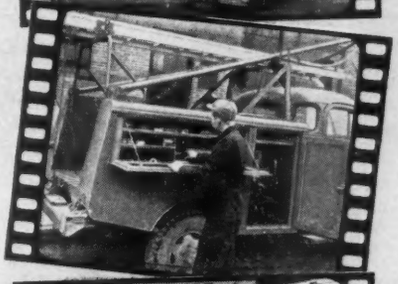
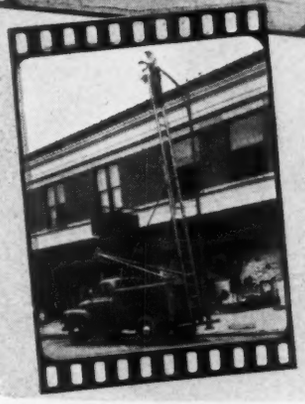
Action!

This Versatile Body is the STAR OF THE FIELD

A leading performer in supporting roles, too!







POWERS *American*

Series 350

LIGHT DUTY MAINTENANCE BODY

Utilities everywhere award the Series 350 an "Oscar" for efficiency. This versatile unit enables a two-man crew to perform maintenance and installation work normally requiring additional men and vehicles. The compact, fold-over derrick sets 40′ poles—a job which would otherwise require costly heavy-duty equipment. There's a 24′ ladder which can be quickly erected for overhead work. Compartments are equipped to carry tools and materials for many service operations. The under-floor winch is always ready to use—without moving material load. No wonder the Series 350 has been acclaimed "the most versatile performer in the field."

more utilities use POWERS-AMERICAN bodies than any other make

CLIP THIS COUPON and attach to your letterhead

McCABE-POWERS AUTO BODY COMPANY, 5906 N. Broadway, St. Louis 15, Mo.
Please forward details on SERIES 350. *Also send information on the following:*

- ☐ LINE CONSTRUCTION BODIES
- ☐ GENERAL SERVICE BODIES
- ☐ REVOLVING AERIAL LADDERS
- ☐ WIRE REELS
- ☐ POLE TRAILERS
- ☐ HYDRAULIC TOWERS
- ☐ _____
- ☐ _____
- ☐ _____

Name_____

Company_____

Address_____

City_____ Zone_____ State_____

3 factors to consider in s for a booth location ..

1 type
IN RELATION TO LIGHT SOURCE

INDOOR

FLUORESCENT PLASTIC

Where main light source is from the side or top of sign location, install FLUORESCENT PLASTIC SIGN. DATA UNITS in this folder are identified by sign type in upper right hand corner of each unit.

REFLECTED

Where main light source is from same direction as source of traffic, install a REFLECTED LIGHT SIGN. See data units marked REFLECTED LIGHT SIGNS in upper right hand corner.

NOTE: 1. Where conditions are not favorable to use of either fluorescent plastic or a reflected light sign, use an electrically lighted sign.

2. Evaluate location for type of sign to be installed. In many instances a Gladwin economy priced series sign will serve the purpose, yet will not conflict with surroundings.

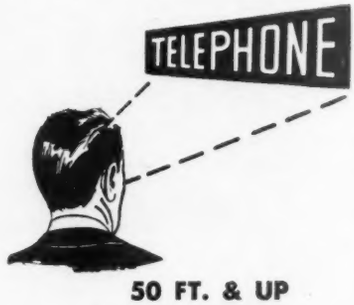
2 size
DISTANCE TO BE SEEN

UP TO 10 FT.

Select signs with 2" letters

10 to 50 FT.

Select signs with 3" letters



50 FT. & UP

Select signs with 4" letters for directional signs or multiple booth installations.

Determine approximate distance from proposed sign location to most distant point from which sign must be visible. Sizes recommended above are based on the fact that a large percentage of the public has imperfect vision and to permit sign to compete effectively with surroundings.

3 color
AMOUNT OF CONTRAST

Color of the sign should be chosen for maximum visibility yet should harmonize with surrounding colors. Gladwin Signs offer you a variety of color combinations to blend with every decorating scheme. Suggestions will be found on data unit sheets titled COLOR COMBINATIONS.'

selecting the ideal sign

REFLECTED

OUTDOOR

Reflected light signs only are recommended for outdoor installations since these signs depend upon automobile lights and street lights for source of light at night. Also, they are the only signs that withstand weathering. See data units titled REFLECTED LIGHT SIGNS FOR INDOOR — OUTDOOR USE in upper right hand corner of units.

BOOTHS — 3"

For installation on single outdoor booths, use sign with 3" letters. This sign has been especially designed for outdoor booths and fits perfectly between the upright corner members.

DIRECTIONAL SIGNS

2" For visibility up to 25 ft.
Use sign with 2" letters

3" For Visibility up to 50 ft.
Use sign with 3" letters

4" For visibility from 50 ft. and over
Use sign with 4" letters

Most outdoor booths are painted in 3 colors: red, green, blue. Gladwin's 500 series for outdoor — indoor use comes in 5 different colors: Blue, red, green, black, and yellow. See REFLECTED LIGHT GROUP color chart on data units in this folder.

telephone signs
master built by
GLADWIN PLASTICS ATLANTA USA

For any information relative to Gladwin "Signs of Service," write **GEORGE H. PHILLIPS, JR.** *Ask for Catalog 5200*

GLADWIN PLASTICS · 275 Houston Street, N. E. · Atlanta 3, Georgia

How to make your best paystation areas pay

Far Better!

Put in Autelco *outdoor* paystations —see how even your best paystation areas show a man-sized boost in revenue! Autelco outdoor paystations draw *extra* revenue because their convenience and 24-hour accessibility encourage patrons to make *extra* calls—calls they wouldn't (or couldn't) make on indoor paystations. Telephone men say outdoor paystations usually gross enough to pay for themselves the first year!

Put Autelco outdoor paystations, attractive booths, and big, easy-to-read signs in your best paystation areas. They'll pay *far better!*

Shown at left: Outdoor booth—Cat. No. 17-S, Type 1, and Paystation Sign—Cat. No. S-6853.

NOW—YOU CAN GET 10-Cent AUTELCO PAYSTATIONS! Write for new Circular 1724 showing our full line, and kits to convert paystations to the 10-cent rate.

Outdoor
AUTELCO PAY STATIONS PAY—RIGHT AROUND THE CLOCK!

Product of the Telephone Specialty Department of

AUTOMATIC ELECTRIC

Originators and Developers of the Strowger Step-by-Step "Director" for Register-Sender-Translator Operation . . . Machine Switching Automatic Dial Systems
Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

Distributors in U. S. and Possessions: Automatic Electric Sales Corporation
Export Distributors: International Automatic Electric Corporation
1033 West Van Buren Street, Chicago 7, U. S. A.

NEWSLETTER
TELEPHONE ENGINEER

Fortnightly TELEPHONE ENGINEER ★ TELEPHONE ENGINEER AND *Management*
ON THE 1st OF EACH MONTH ON THE 15th OF EACH MONTH
NEWSLETTERS *on Alternate Weeks*

October 15, 1952

Dear Sir:

Earlier predictions that the supply of copper would continually improve to the point where government controls might be eased to the status of virtual non-existence were discarded recently when National Production Authority officials told members of the Wire and Cable Industry Advisory Committee that domestic and foreign copper supplies are falling off and NPA doubts "any possibility of abandoning CMP controls on copper as long as military, defense-supporting, and essential civilian requirements continue at the present level."

At a Washington conference with the industry representatives, NPA officials said they see no chance for relaxing copper controls or the issuance of more CMP "tickets" than those already given out for fourth quarter of this year and first quarter of 1953. NPA spokesmen described the copper situation as "in a state of confusion."

In addition to urging government officials to publicize the fact that a copper shortage exists, industry representatives urged that the plan to stockpile copper be deferred until industry catches up with its back order load, which industry reported as representing at least five months' production. Also this month, the Primary Copper Producers Industry Advisory Committee told NPA there is not sufficient raw copper to meet expanded military and civilian requirements and also resume stockpiling.

* * *

60 telephone companies in California reported Sept. 15 to California Public Utilities Commission, which last November instituted investigation into statewide facilities & service, that by end of 1956 they will have spent more than $2,000,000,000 to expand & improve telephone facilities in 12-year postwar program. Report showed California telephone companies have invested $995,000,000 in plant expansion since end of war, with additional $1,140,000,000 estimated by end of 1956.

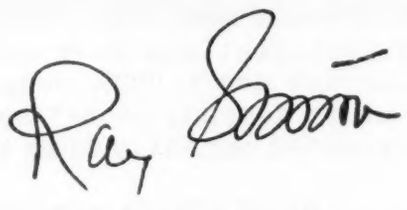
Report disclosed that telephone growth has been even greater than tremendous population growth in Calif. Since 1940, it was brought out, there has been 124% increase in number of telephones. Dial conversions & installations have continued high, & California proportion of dial service now is 90%, compared to national average of 70%. As for expected future demand, report said about 200,000 requests for new service are expected annually this year & next.

HIGHLIGHTS:--Ganado (Tex.) Tel. Co. plans completion of automatic system soon . . . Carl Von Hake, formerly eastern district mgr. of Assoc.

Tel. Co., Ltd., Santa Monica, Calif., named general plant sup't. He succeeds Thomas A. Osborne, who resigned position because of illness. Company named G. Howard Briggs, former general commercial engineer, to replace Mr. Von Hake as district mgr. . . . Milton (N. D.) Tel. Co. completed rebuilding of entire system . . . Cream Valley Tel. Co., Hawkins, Wis., accepted bid of $72,000 for line construction project . . . J. C. Jennings, mgr., Hawkinsville (Ga.) Tel. Co., announced plans to convert system to automatic operation . . . Ed Hons is new manager of Harlan (Ia.) Tel. Exchange . . . Robert Mussman, president of Hebron & DeMotte-Roselawn (Ind.) telephone exchanges, announced plan to merge two systems under Northwestern Ind. Tel. Co., & modernize merged system . . . Ozark Central Tel. Co., Festus, Mo., started construction of new exchange building . . . Boyer Valley (Ia.) Tel. Corp. named Leon Yount, Logan, manager; John W. Kellogg, Missouri Valley, sec-treas.; E. I. Rogers, Jr., Dunlap, member of board. The three new officials hold positions formerly held by L. D. Meyers, who passed away recently.

Independent Tel. Co., Rosholt (S. D.) plans installation of dial system . . . Northeastern Montana Tel. Co-op. Assoc., incorporated at Scobey, Mont. . . . Coin & Blanchard (Ia.) Tel. Exchanges have joined those of Shambaugh, Braddyville, College Springs, New Market, Bethesda & Yorktown (Ia.) in plans for building a central exchange, financed by REA money . . . Linn County Tel. Co., Lebanon, Ore., plans conversion of Lebanon & Sweet Home exchanges to automatic operation . . . Hinesville (Ga.) Tel. Co. completed extensive rehabilitation program . . . Associated Tel. Co., Santa Monica, Calif., seeks sale of system in Potrero Heights area of South San Gabriel (Calif.) to Pacific Tel. & Tel. Co., San Francisco, Calif., for $10,832.84 . . . Southwestern States Tel. Co. completing first toll dialing system in Arkansas to join systems at Stuttgart, Dewitt, Bayou, Meto, St. Charles, Gillett, Humphrey, Almyra, Hazen, Des Arc, & DeValls Bluff . . . SCVAK Tel. Co., Cahoma, Tex., filed suit for $20,000 damages against W. A. Hunter of Coahoma & C. K. Orr & B. J. Cauble of Big Spring. Petition claims Hunter sold Coahoma exchange to Orr & Cauble for $15,000, after having entered binding contract with SCVAK company to sell exchange for $10,000 . . . Mr. & Mrs. Oscar C. Ackerman, Oakland, Calif., purchased Diamond (Mo.) Tel. Exchange . . . Blair (Neb.) Tel. Co. completing conversion of system to dial operation.

Standard Tel. Co. started construction of $75,000 exchange building at Clarkesville (Ga.) exchange . . . Middle States Tel. Co. started building to house new dial system at Pekin, (Ill.) exchange . . . Roxbury (Kans.) Tel. Co. incorporated by Roy L. Bowen . . . Commerce (Ga.) Tel. Co. plans installation of automatic system . . . West Virginia Independent Tel. Assoc. announced that 1952 annual convention will be held jointly with Virginia Independent Tel. Assoc. at Roanoke Hotel, Roanoke, Va., Nov. 6-7 . . . Campti-Pleasant Hill Tel. Co., Campti, La., completed conversion of system to automatic operation . . . Tidewater Tel. Co. Warsaw, Va., announced installation of 10,000th telephone recently.



Ray W. Smith, Editor

The Big Months are Ahead...

FOR HOMELITE Stand by POWER

Winter is just ahead. This means storms . . . wind storms, snow storms, ice storms . . . with resulting power failures. Get ready for it now with Homelite standby power.

With Homelite gasoline-engine-driven Generators you get all the emergency power you need . . . emergency power for your main stations . . . emergency power for your relay stations . . . carryable emergency power that you can rush to any spot in your system.

Write today . . . outlining your requirements . . . and Homelite engineers will promptly recommend the best system of standby power suited to your needs.

Manufacturers of Homelite

Carryable Pumps • Generators

Blowers • Chain Saws

PERFORMANCE · DEPENDABILITY · SERVICE

HOMELITE
CORPORATION

1210 RIVERDALE AVENUE • PORT CHESTER, N. Y.

DISTRIBUTED BY KELLOGG SWITCHBOARD AND SUPPLY COMPANY

DROP ENDURPRENE BRIDLE

MANUFACTURED BY GENERAL INSULATED WIRE WORKS, INC., PROVIDENCE, R.I.

"QUOTES"

"We, too, are anxious to see citizens have their costs reduced, but we have yet to find a satisfactory answer to the question: 'Why should the owners of rental properties make up the only group forced to take a licking?' We might ask just what costs, which the landlord must meet, have been kept down to the figure in effect when rentals were frozen?" — Coatesville (Pa.) Record.

• • •

"Almost all of the people of the United States have an indirect stake in the success of the business and industrial concerns of the nation through ownership of life insurance policies."—Mesabi (Minn.) Daily News.

• • •

"The Tax Foundation, a non-profit private organization, in a study of the extent and effects of Federal aid, points how the states are getting into the habit of taxing and taxing and spending and spending, in order to take advantage of the grants from the Federal government. It's a vicious vise with the taxpayer caught fast between."—Corvallis (Ore.) Gazette-Times.

• • •

"When the average American's income begins to shrink . . . he looks for a way to cut expenses. But not so in Washington. Every time Congress suggests a small appropriation for any purpose, a bureaucratic howl rises. 'Tax and Spend' is still a popular song on the Potomac."—*Mebane (N. C.) Enterprise.*

"There are two great principles which are derived from religion, the two pillars on which rest American freedom; the sovereignty of God in the stream of history and the sacredness of the individual. . . . And right here it becomes pertinent to repeat the old biblical admonition: 'Remove not, the ancient landmarks, which thy fathers have set.'"—*Alma (Mich.) Journal.*

• • •

"Nobody is indifferent to high taxes. That's obvious in the fact that everybody bellyaches about them. But high taxes go on—and keep getting higher. Why? Because most of us are indifferent to the corrective measures necessary to cut down waste and extravagance in government. It's easier to bellyache than to take action."—*Wilmington (Calif.) Press-Journal.*

• • •

General Motors paid $1,141,000,000 in taxes in 1951, which amounts to $13.04 in taxes paid per common share of stock, compared with $4.00 per share of dividends to stockholders. Thus, the government gets three times as much out of General Motors than the owners, themselves. They call it a 'corporation tax', and many people are inclined to think it is the corporation that pays it. In reality, the stockholders—millions of them in hundreds of corporations—are paying it out of their savings and investments." — *Washington (Iowa) Evening Journal.*

In 1950, 6,200,000 poles were treated with wood preservatives . . . 5,380,000, or approximately 90%, were pressure creosoted. There are many reasons why the preponderance of poles, ties, piles and lumber are treated with creosote oil. The chief reason is its low cost per year . . . only creosote has stood the test of time in all types of weather, in alkaline or acid soil, in fresh or salt water.

You won't go wrong in standardizing on *Creosoted* wood . . . and you'll be right in relying on Republic as your primary source for quality creosoted products.

Reilly
COAL TAR
PRODUCTS

Republic Creosoting Co.
MERCHANTS BANK BUILDING
INDIANAPOLIS, INDIANA

Republic Creosoted
Railroad Ties Lumber
Wood Blocks Piling
Cross Arms Poles

REA's telephone loan funds may be exhausted early in December . . . REA may seek $100,000,000 fund for fiscal year starting July 1, 1953.

Washington Bureau Reports

By ROLAND DAVIES and FRED HENCK

WITH ITS TELEPHONE loan funds being allocated at a rate which will result in their being exhausted early in December—instead of about the end of the year, as anticipated previously—the Rural Electrification Administration is expected to "stockpile" applications for final approval when the new Congress votes a supplemental appropriation.

Under the presently-planned procedure, staff processing of telephone loan applications would go forward just as though REA had the money to allocate, right up to final approval by Administrator Claude R. Wickard. Then, as soon as the supplemental fund is approved, Mr. Wickard would be able to sign a series of allocation orders.

As REA's telephone loan application backlog continues to rise, despite the $2,000,000 weekly allocation pace of recent weeks, there appeared little doubt that the new Congress, regardless of its political complexion, will act promptly to provide supplemental money. Democrats and Republicans, particularly those from the farm belt, usually compete with each other in general approval of the REA programs.

One figure heard in Washington for the REA request for the remainder of the 1953 fiscal year, ending next June 30, was $25,000,000. For fiscal 1954, starting next July 1 (for which the federal budget request will be submitted fairly early in the next Congress) REA might ask for $100,000,000. This is based on the recent $2,000,000 weekly average, which seems about par for the course for the present REA staff organization.

For complete clarity, it should be reemphasized that when REA runs out of telephone loan money in December, it will be completely out of it, including contingency funds. The agency, under present law and interpretations, cannot transfer electrification money to the telephone program, nor allocate funds without specific authority, even though it usually delivers the money well after the allocation is made.

One way to keep the allocations moving might be for the agency to get a letter of authorization from the 83rd Congress' Agriculture appropriations subcommittee chairman, but such an approach is not being taken seriously, at least at present.

Providing the agency with a good argument for additional money is the fact that the backlog of held applications is still going up. The backlog, and suspension of allocations for one or more months pending Congressional action, will give REA powerful arguments for the supplemental loan authority.

Although central office equipment continues to be a limiting factor in actually putting REA-financed phones in service, the number of cutovers of new systems scheduled for the next few months continues to rise.

Most recent available information was that four cutovers were scheduled for October, three for November, nine for December (the period immediately before Christmas has always been a big one for new electrification systems financed by REA, and the same pattern is shaping up in the telephone field) and four for early next year.

"Lead time" for deliveries of central office equipment by manufacturers now is running at about 12 months, REA sources report, instead of the previous 18 months.

$260,000,000,000 FLYING SAUCER!

NARUC Telephone Committee

AS A RESULT of the "Charleston plan of interstate-intrastate telephone separations, and the revised interstate toll rate schedule which went into effect March 1, disparities between interstate and state toll rates, measured in dollars, have been cut in half, or about $60,000,000, the Telephone Staff Committee of the Nation-

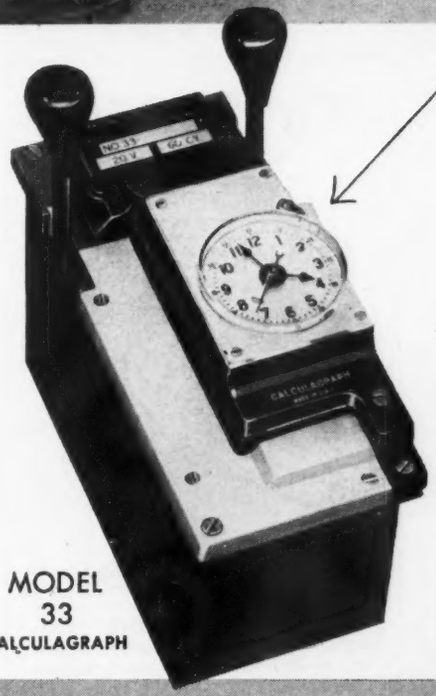
(*Please turn to page* 20)

Here's why *modern* exchanges use

CALCULAGRAPH

Photo Courtesy of STROMBERG CARLSON CO. and THE PENINSULAR TELEPHONE CO.

–for QUICK, ACCURATE, AUTOMATIC toll time recording!



MODEL 33 CALCULAGRAPH

Busy exchanges throughout the world are using Calculagraphs because they produce quick, accurate, automatic toll time records. Accurate to-the-second, printed records eliminate switchboard detail work and assure you of collection of all revenue due on every call. **CALCULAGRAPHS** are precision instruments with high visibility clock dials, easy to operate—featuring smooth silent lever action.

For complete information on the various models available write to—

CALCULAGRAPH COMPANY

HARRISON • NEW JERSEY

THE STANDARD OF ACCURACY SINCE 1892

HANG THE LOAD ON HUBBARD HARDWARE

HUBBARD-COPPERWELD GROUND RODS

Hubbard-Copperweld Ground Rods have the rigidity of steel necessary for driving . . . their thick sheath of molten-welded copper protects them from deterioration. They offer assured protection, when installed to a sufficient depth to reach permanent moisture. They come in diameters from ⅜ to 1-inch and in lengths from 5 to 40 feet. Clamps may be had as illustrated, with either square head set screw or safety set screw.

HUBBARD HARDWARE FOR THE TELEPHONE LINE

OVERHEAD

Cable Suspension Material—Wireholders
Pole Seats and Balconies—Clevises
Braces—Drive Hooks—Messenger Dead Ends—Extension Arms—Long Span Material—Pins—Clamps—Guards—Stubbing Bands—Guy Protectors—Guy Clamps
Pole Struts—Clips—Straps—Hangers
Carriage Bolts—Rings—Transposition Brackets—Eye Bolts—Pole, Corner and House Brackets—Guy Hooks—Strain Plates—Storm Guy Straps—Lags—Machine and Hubeye Bolts—Sidewalk Guys
REA Telephone Hardware

UNDERGROUND

Cable Racks—Manhole Ladders and Steps
Pulling-in Irons—Expanding Anchors
Cable Shields—Screw Steelwing Anchors
Anchor Rods—Ground Rods and Clamps

HUBBARD AND COMPANY
ESTABLISHED 1843
PITTSBURGH • CHICAGO • OAKLAND, CALIFORNIA
"Hang the Load on Hubbard Hardware!"

al Association of Railroad and Utilities Commissioners and Federal Communications Commission concluded at a meeting in Washington.

The work of the staff group is directed toward formulation of the report of the NARUC Telephone (Commissioners) Committee to the association's annual convention, scheduled for Little Rock, Ark., in mid-November.

For the first time in three years, it is expected that the Telephone Committee's report will not contain recommendations for definitive regulatory action to reduce interstate-state telephone rate disparities.

The committee is understood to believe that it is necessary to give the Charleston plan a thorough trial to determine if it is the best method obtainable of reducing the rate disparities.

Commerce Group Studies Post Office

MAKING A CASE for return of federal government business-type operations to private enterprise or state and local governments, the Council of State Chambers of Commerce has pointed out in a research summary that the Bell System, with about the same number of employees as the U. S. Post Office, had 50% more operating revenue, and made about as much in net operating income as the Post Office lost.

Although the council generally urged that a study be made of business-type operations with an eye to-

(*Please turn to page* 80)

My Neighbors

By BILL PAULSON

(With the National Debt totaling $260,000,000,000, the per capita share—including new-born babies—is $1664.)

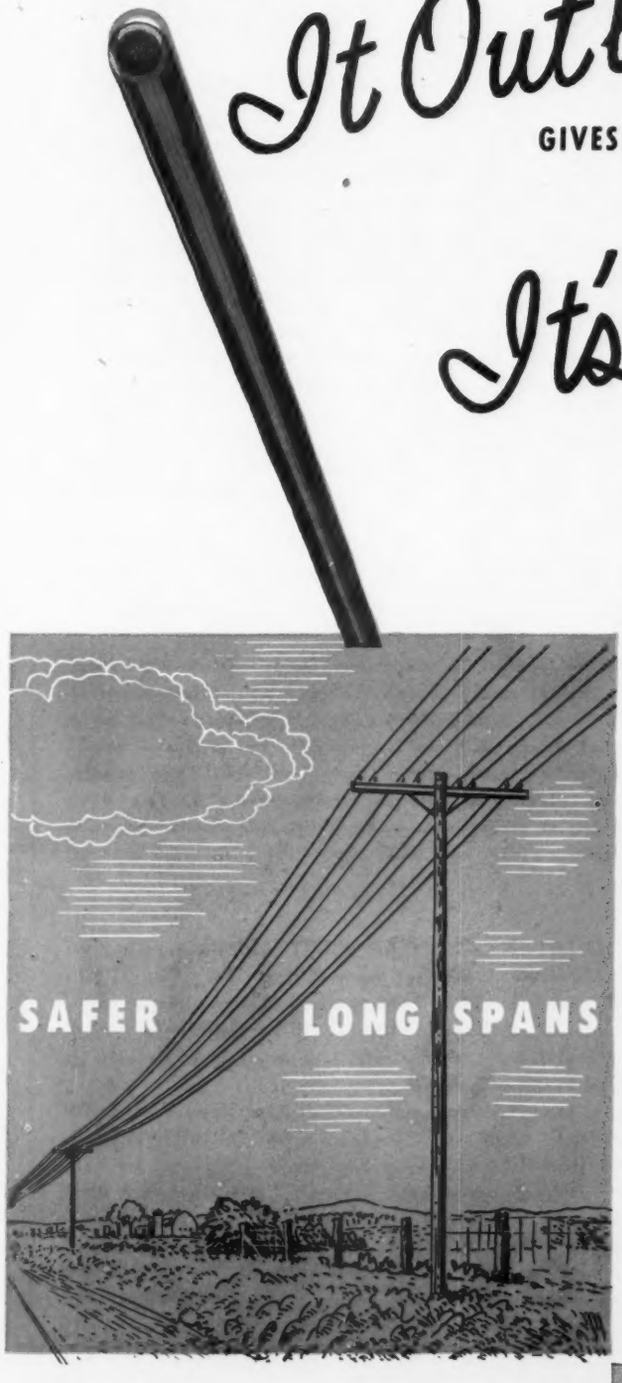
It Outperforms...

HAS BETTER VOICE TRANSMISSION THAN ANY OTHER HIGH-STRENGTH CONDUCTOR

It Outlasts...

GIVES PERMANENT PROTECTION AGAINST RUST

It's Copperweld® LINE WIRE



If you're looking for a non-rusting line wire that will give you greater safety for long spans, permanently better conductivity, and a lifetime of trouble-free service, Copperweld* Line Wire is your answer.

Made by molten-welding a thick copper covering to a strong steel core, Copperweld Line Wire provides better voice and high frequency transmission characteristics than any other high-strength conductor—has greater tensile strength than any wire of comparable electrical properties—assures permanent protection against corrosion. These vitally important properties make Copperweld the perfect conductor for all types of communication and signal lines, including carrier current systems where its high strength permits stringing with small sags, allowing close conductor spacings.

The tough and permanently protected steel core of Copperweld Line Wire furnishes the strength necessary for safe, economical, long-span construction. You'll save on repairs and maintenance because Copperweld has the ruggedness to withstand heavy ice and wind loads.

When you use Copperweld Line Wire, you get a dependable conductor that delivers dependable performance at the lowest annual cost. Complete information and engineering assistance are yours for the asking . . . without any obligation.

*Trade Mark

COPPERWELD STEEL COMPANY ***Glassport, Pa.***

SALES OFFICES IN PRINCIPAL CITIES

Copperweld® NON-RUSTING Line Wire

SOLD BY LEADING DISTRIBUTORS

COSTS 1/3 LESS THAN METAL GUARDS—AND NO MAINTENANCE PROBLEM

FLEXIBAL Guy Guards —- in standard lengths — provide the flexibility that gives with the blow and cushions the impact. Aluminum-painted, they offer both day and night visibility. No other type of guard is so easy to handle, so simple to install — none so effectively cut down losses — never gets out of commission.

USED AND PRAISED BY CONSTANTLY GROWING LIST OF UTILITIES

R.E.A. APPROVED

Write for Free Sample and Prices

SEE YOUR JOBBER OR WRITE TO
S. E. OVERTON COMPANY
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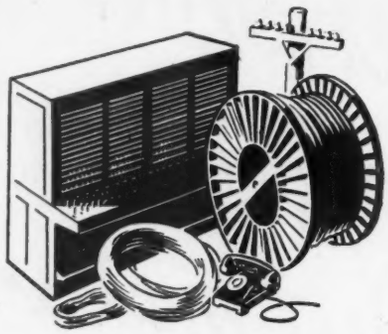


NEW IDEAS AT WORK

• •

'TIERING CABLE REELS . . .' In the Western Electric's Los Angeles Distributing House and in the Boston House, too, they've been trying out a new system for storing and dispensing cable to the telephone companies in measured "retail" lengths.

The system is called "tiering" and the cable reels are stored "up in the air". Among its many advantages are greater reel storage capacity in a given area and that of having all reels readily available and easily located when needed. It has proved so successful it is scheduled for a number of other houses soon.

One question occurred to us, and probably to you, too: How do reels of cable, which may weigh as much as 8 tons, get "up in the air"? The answer, it seems, is simple. Key item in the new setup is a "tiering" truck. This not only lifts, positions and transports cable reels, but registers the weight of each.

Also used with the new setup is a cable measuring machine which pulls cable off the reels and measures it to accurate lengths.

• • •

NO WOOD:—No Wood is used in the telephone switchboards on the new superliner United States. Rigid fire specifications ruled out wood in virtually everything connected with the big ship. Special designs were necessary for switchboards that included aluminum and other fire resistant materials. With 750 standard telephone instruments aboard, the new super liner has the most complete passenger telephone service afloat. There are seven complete and separate communication systems.

• • •

PORTABLE HYDRAULIC POLE LIFT:—The newest of many labor-saving devices used by Associated Tel. Co., Ltd., Santa Monica, Calif. is a portable hydraulic pole lift discovered by Associated personnel in Long Beach. The unit was originally designed and built by the Edison Co. of Long Beach in cooperation with the Fornaciari Co.

Composed of a small gasoline engine and two hydraulic jacks the unit is so built that each jack can be controlled individually, making it possible to keep the pole level or to maneuver it between existing lines and poles. To make the unit more easily portable, two Edison employees, Hogg and Davis of Long Beach, designed and built a carriage in which the complete unit can be moved to locations not accessible to trucks. It is so balanced that one man can move the unit from pole to pole with a minimum of effort.

The importance of the unit lies in the number of hours it saves and the dangers it eliminates by allowing personnel to be away from the pole during actual removal. In Santa Barbara recently, a particularly difficult pole was removed at a cost of six hours and much effort from the hard soil formation in which it was set. With the new jacks, the same pole could have been removed in not more than 45 minutes.

Right on the job!

International Trucks are strictly *right* on the job because they incorporate all the advantages a service truck should have. They're rugged, dependable, economical to operate.

The all-steel service-utility bodies are welded into one rugged unit. Compartments and bins are of various sizes to accommodate all your equipment.

There are many International Trucks to choose from. Your International Dealer or Branch can help you find the one that's right for your job.

INTERNATIONAL HARVESTER COMPANY · CHICAGO

Only International gives you all this:

- Silver Diamond valve-in-head truck engines are rugged, packed with extra power. Engineered to save you plenty on operating and maintenance costs.
- New green-tinted, non-glare safety glass available in the Comfo-Vision Cab. One-piece full-vision windshield.
- Super-steering—more positive control. Wider front axles make possible full 37° turning angle for easier handling and maneuverability.
- Wide variety of light-duty models — ½, ¾, and 1-ton sizes — GVW's from 4,200 to 8,600 lbs. 115, 127, 134-in. wheelbases. Pickup, panel, stake, and many other types of bodies.

SEE YOU AT THE POLLS

International Harvester Builds McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Industrial Power . . . Refrigerators and Freezers

Better roads mean a better America

INTERNATIONAL TRUCKS

"Standard of the Highway"

International L-130 series with special service-utility bodies—115 and 134-inch wheelbases. GVW's from 6,800 to 8,600 lbs.

SMALLER LIGHTER & BETTER

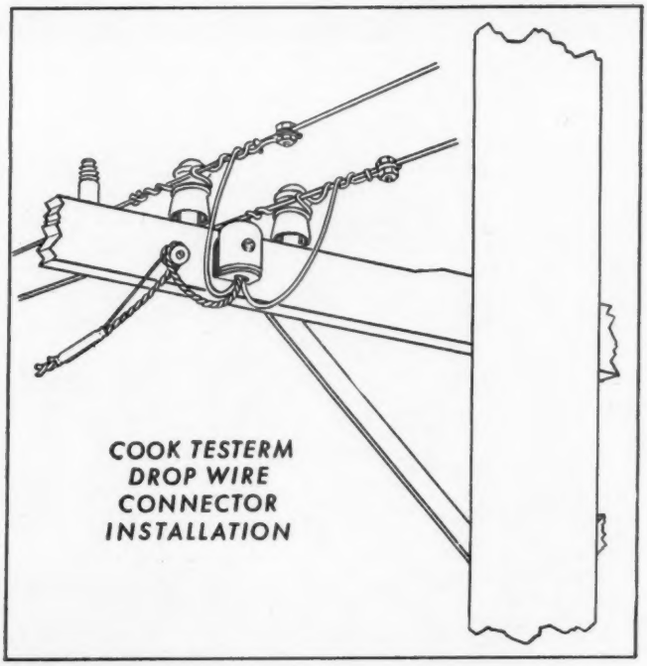
THE NEW COOK TESTERM DROP WIRE CONNECTOR

has been redesigned and built of lighter alloys to provide for better insulation, to reduce shipping costs, simplify installation, occupy less space and further improve the connecting methods of subscriber drops to open wire. Overall dimensions of the unit have been reduced but the spacing between the conductors is the same as the original design.

The base and cover are detachable from the mounting bracket by a bayonet locking arrangement of three Everdur studs that are "upset" to prevent loss of nuts during installation. These nuts fit the standard socket wrench. Wire entrances are sealed by a Neoprene gasket to prevent the entrance of insects, dirt and moisture.

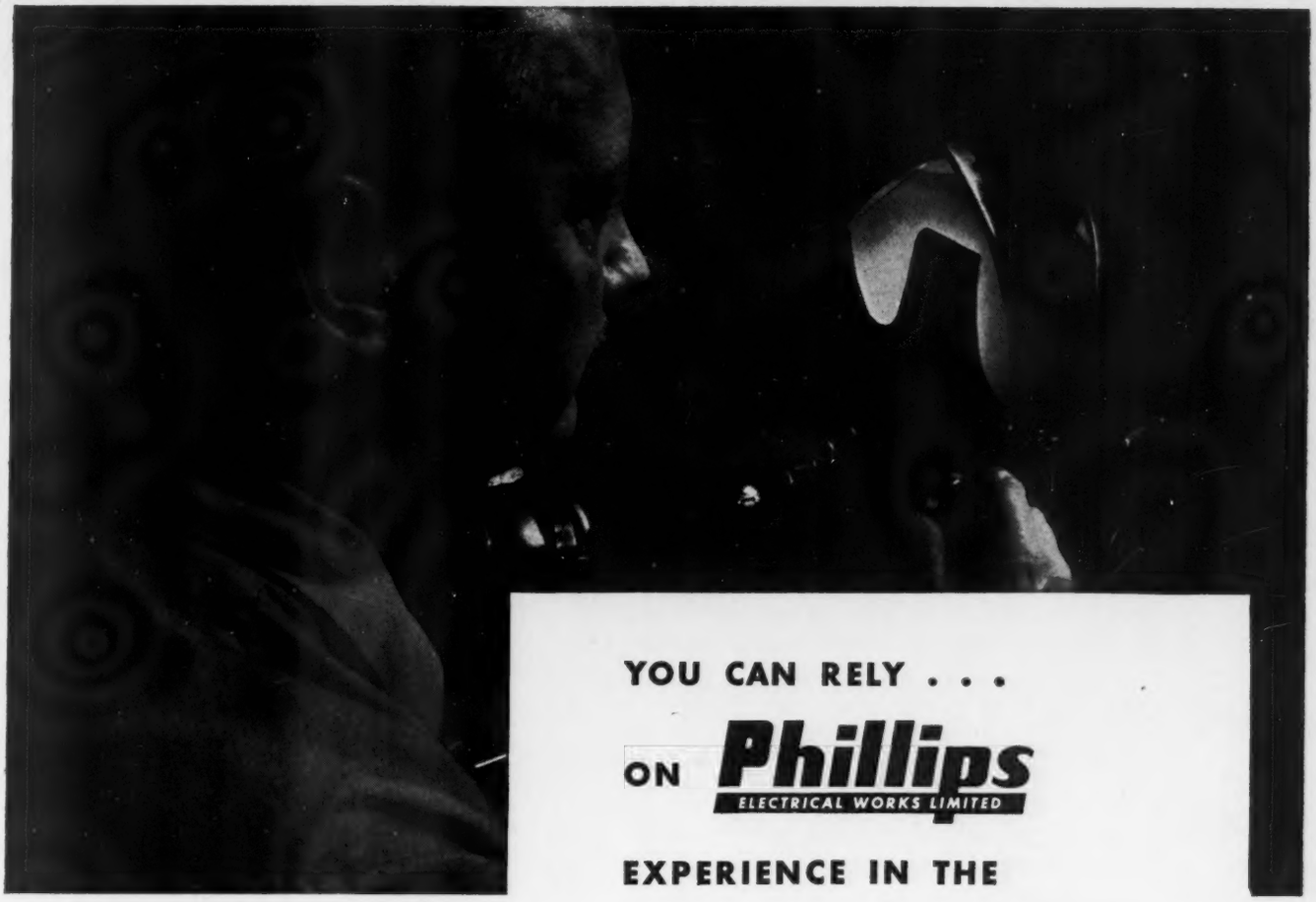
The new Testerm Drop Wire Connector Part No. 563-30 supersedes Part No. 563-1.

Illustration at right shows the simplified compact installation of the Cook Testerm Drop Wire Connector.



COOK TESTERM DROP WIRE CONNECTOR INSTALLATION

COOK ELECTRIC Company



YOU CAN RELY . . .

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ELECTRICAL WORKS LIMITED

EXPERIENCE IN THE PRECISION MANUFACTURE OF STROWGER AUTOMATIC TELEPHONE CENTRAL OFFICE EQUIPMENT . . .

Because Strowger automatic equipment is made in Canada, continuously available service is assured and additional equipment easily obtained!

Comparator used in Phillips laboratories for checking accuracy of machine parts against master patterns.

Phillips is a member of The International Automatic Electric Group, a complete organization built up to meet the design and production needs of the many telephone operating companies throughout the world.

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Safeguard the Liberties which a

Just before election, Boy Scouts will deliver to the more than 30 million American homes four-color cardboard replicas of the Liberty Bell to be hung on door knobs, the reverse sides of which will carry the Freedom Foundation's Inc., Credo and the words: "I am too young to vote. Will you vote for me to protect my freedom until I am of age?"—signed in pencil by the delivering Scouts. On Monday, November 3, the same boys will call again, asking, "If you're going to vote, turn on all the lights in the house tonight—lights for Liberty." Finally, the Scouts will offer their services as baby sitters.

Published with Cooperation of American Heritage Foundation, The Boy Scouts of America and Freedom's Foundation

Credo of Freedoms Foundation, Valley Forge

THE AMERICAN WAY OF LIFE

POLITICAL AND ECONOMIC RIGHTS
WHICH PROTECT THE DIGNITY AND FREEDOM OF THE INDIVIDUAL.

- RIGHT TO WORSHIP GOD IN ONE'S OWN WAY.
- RIGHT TO FREE SPEECH AND PRESS.
- RIGHT TO ASSEMBLE.
- RIGHT TO PETITION FOR GRIEVANCES.
- RIGHT TO PRIVACY IN OUR HOMES.
- RIGHT OF HABEAS CORPUS — NO EXCESSIVE BAIL.
- RIGHT TO TRIAL BY JURY — INNOCENT TILL PROVED GUILTY.
- RIGHT TO MOVE ABOUT FREELY AT HOME AND ABROAD.
- RIGHT TO OWN PRIVATE PROPERTY.
- RIGHT TO WORK IN CALLINGS AND LOCALITIES OF OUR CHOICE.
- RIGHT TO BARGAIN WITH OUR EMPLOYERS.
- RIGHT TO GO INTO BUSINESS, COMPETE, MAKE A PROFIT.
- RIGHT TO BARGAIN FOR GOODS AND SERVICES IN A FREE MARKET.
- RIGHT TO CONTRACT ABOUT OUR AFFAIRS.
- RIGHT TO THE SERVICE OF GOVERNMENT AS A PROTECTOR AND REFEREE.
- RIGHT TO FREEDOM FROM "ARBITRARY" GOVERNMENT REGULATION AND CONTROL.

CONSTITUTIONAL GOVERNMENT
DESIGNED TO
SERVE THE PEOPLE

FUNDAMENTAL BELIEF IN GOD

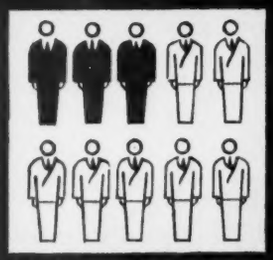
To Maintain The American Way Of Life And Pass It Intact To Succeeding Generations Is The Responsibility Of Every True American

h are your heritage and theirs... *Vote!*

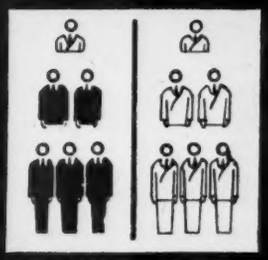
Don't be fooled — your vote is important! Because every vote is important! . . . The value of one vote has proved the deciding factor in the election or defeat of particular candidates.

Rutherford B. Hayes was elected by *ONE* vote! John Quincy Adams was elected by *ONE* vote! So was Thomas Jefferson! . . . The States of California, Idaho, Oregon, Texas and Washington joined the Union by virtue of a *single* vote!

★ YOUR VOTE IS IMPORTANT! ★

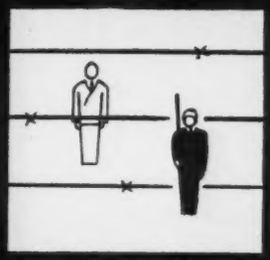


Only three out of every ten persons in the U. S. A. voted in the November 2, 1948 election.



Of nearly 100 million persons over 21 years of age, most of whom could have voted, less than 50 million actually did vote.

Failure to vote now may endanger our enviable privilege to pick and choose the kind of government *WE* want.



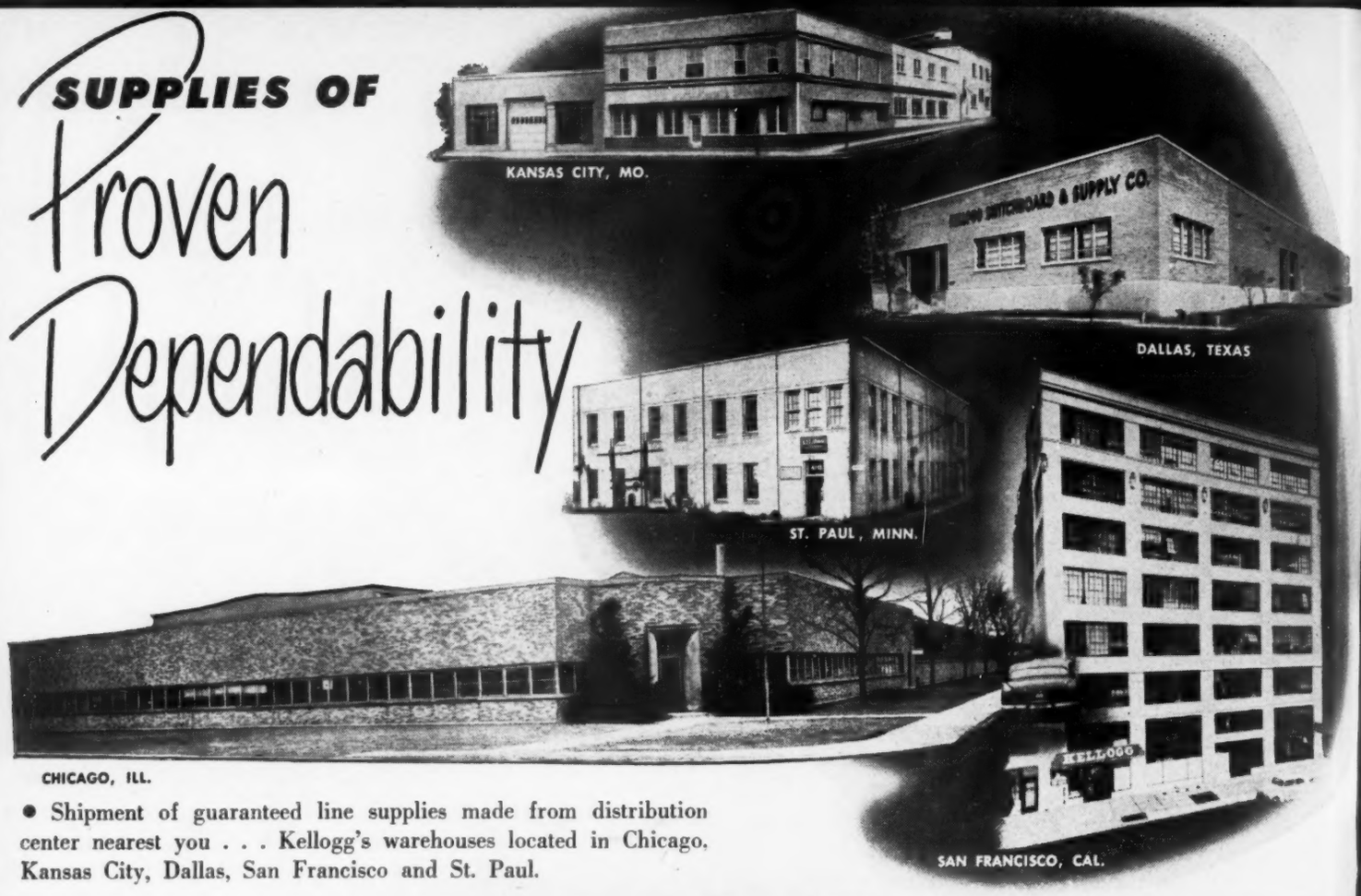
The tyranny of control by organized minority can only be prevented by exercising our privilege to vote.

KELLOGG .. AN IT&T ASSOCIATE .....

KELLOGG SWITCHBOARD AND SUPPLY COMPANY
Sales Offices: 79 West Monroe St., Chicago 3, Ill.
Factory: 6650 South Cicero Avenue, Chicago 38, Ill.

An Associate of International Telephone and Telegraph Corporation

SUPPLIES OF Proven Dependability

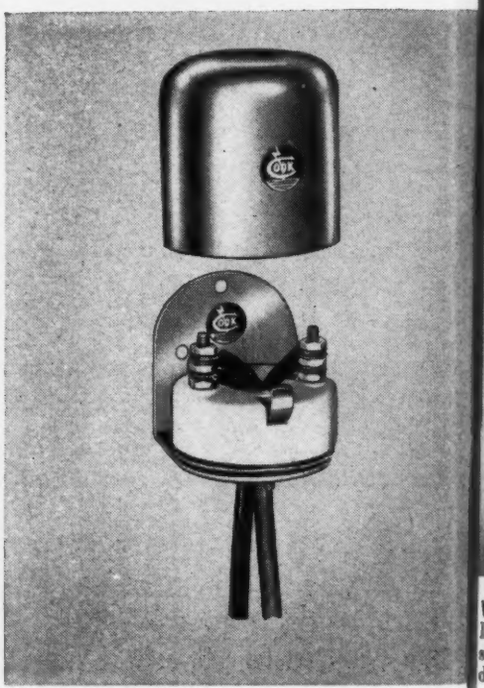


• Shipment of guaranteed line supplies made from distribution center nearest you . . . Kellogg's warehouses located in Chicago, Kansas City, Dallas, San Francisco and St. Paul.

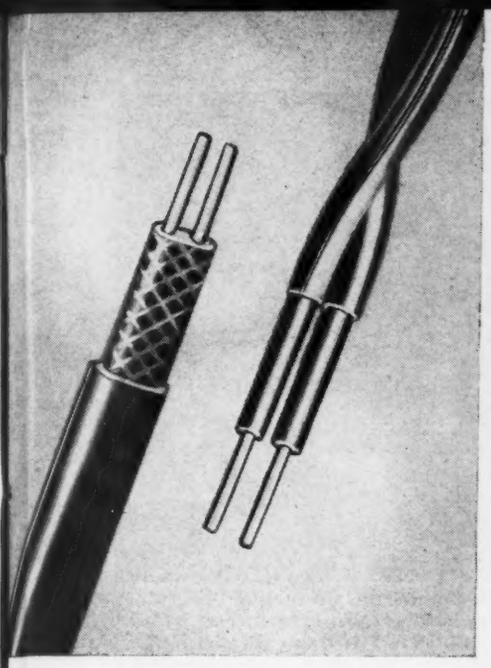
The following nationally-known manufacturers of supplies for the independent telephone field are participating in the 1952 Kellogg Co-Operative Campaign.

American Creosote Works, Inc.
American Structural Products Co.
Ansonia Electrical Company
Bishop Manufacturing Corp.
Boston Woven Hose and Rubber Company
Churchill Cabinet Company
Continental Cross-Arm Co.
Cook Electric Company
Copperweld Steel Company
The Electric Storage Battery Co.
General Insulated Wire Works, Inc.
Gould-National Battery Inc.
W. A. Hammond Drierite Company
Indiana Steel & Wire Company
Kester Solder Company
Lorain Products Corporation
T. J. Moss Tie Company
National Carbon Company
A Division of Union Carbide and Carbon Corporation
National Telephone Supply Co.
Newman Manufacturing Company
Paragon Electric Company
Ray-O-Vac Company
Raytheon Manufacturing Co.
Reliable Electric Company
M. M. Rhodes & Sons Company
Schauer Manufacturing Corp.
Taca Cable Stripper Manufacturing Co.
Vulcan Electric Company
Weller Electric Corp.

Sealed Against Trouble! Communication equipment manufacturers demand Kester Plastic Rosin-core Solder, because it makes a perfect seal. Prevents high-resistance joints and intermittent open-and-closed circuits. Avoid trouble —use KESTER SOLDER COMPANY Solder.

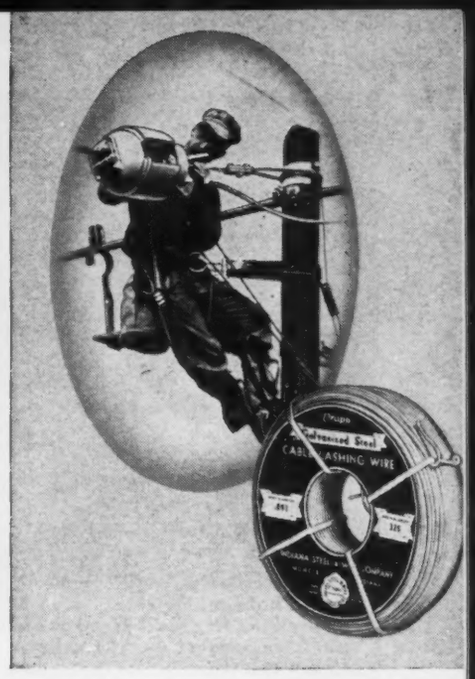


New and Improved! The Cook Testerm Drop Wire Connector has been redesigned. Built of lighter alloys it provides better insulation, costs less to ship, is simpler to install and improves the connecting methods of subscriber drops to open wire. COOK ELECTRIC CO.

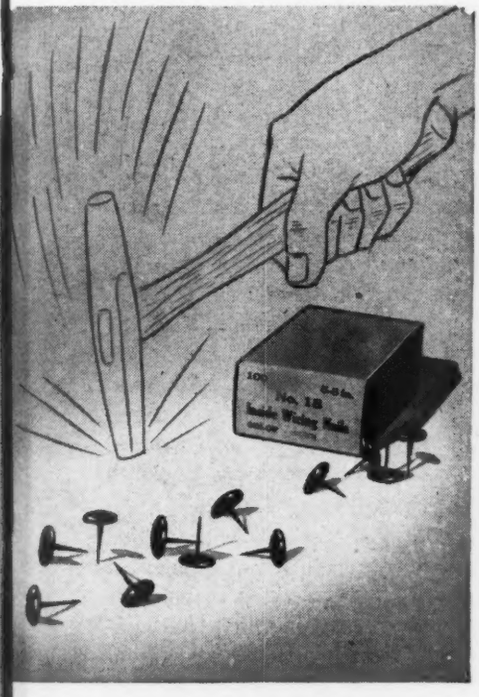


Lasts 30% Longer! Long service life and low plant costs go hand-in-hand with the installation of ENDURPRENE—The Neoprene Drop Wire available in both Copperweld and bronze. This flexible and easy to handle wire is made by GENERAL INSULATED WIRE WORKS, Inc.

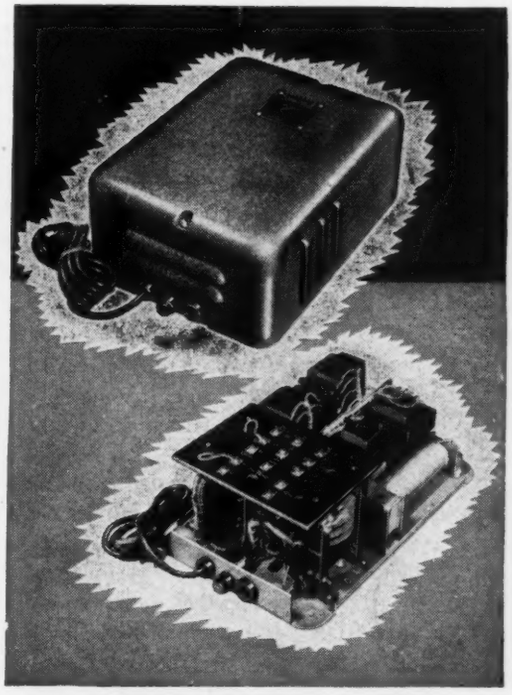
"A Long Time Between Poles—It's Copperweld" —The permanent high strength of non-rusting Copperweld Line Wire makes it safe and economical for long-life, long-span construction. Provides best conductance of any high strength conductor. COPPERWELD STEEL CO.



Available Now for use with modern cable spinners, is Crapo Galvanized Steel Lashing Wire. This heavily-galvanized wire is .091" diameter, comes in 325-foot coils. "Stainless Steel" Lashing Wire is also available in .045" and 0.65" diameter. INDIANA STEEL AND WIRE CO.



Why Do It the Hard Way? Making neat installations is easy—with Rhodes Wiring Nails! Designed for telephone work—quality insured by driving, bending, withdrawing and immersing tests. Made by M. M. RHODES & SONS CO., in several colors and pin-lengths.



12 Models—5 Cabinet Sizes comprise this new line of packaged power Sub-Cycle "RT-Units" for P.B.X. and small switchboards. Both ringing and talking power are combined in one cabinet. Made by LORAIN PRODUCTS CORPORATION. Write for Bulletin 159.

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Photo taken at banquet for city & county officials following recent cutover of Southern Continental Tel. Co.'s Columbia, Ky., exchange. Seated on left side of table (l. to r.): Loren Kelly, Glasgow; Hubert Bush, Somerset; W. K. Shell, Somerset; O. A. Durham, county attorney, Columbia; Earle Blomeyer, Elizabethtown; Ashton Shrader, Pres., Columbia Chamber of Commerce; Alvin Lewis, councilman, Columbia; James Montgomery, city clerk. Columbia; John M. Shelly, Adair County News, Columbia; G. A. Klein, Cookeville. Seated on right side of table (l. to r.): T. S. Lauver, Cookeville; John Reitze, Elizabethtown; Raymond Case, Glasgow; W. R. Bacon, Glasgow; Charles Baugh, Elizabethtown; J. L. Zieg, Campbellsville; and Ralph Willis, mayor, Columbia.

Industry News Briefs

Ike Reaffirms Position on REA Programs

THE POSITION of the Republican party platform on the programs of the Rural Electrification Administration was reaffirmed by General D. Eisenhower in his address on farm policy at Omaha, Neb., Sept. 18.

The GOP nominee declared, "The Republican party favors a sound program of rural electrification and rural telephone service. The Republican 80th Congress made available for REA loans $800,000,000—the largest amount ever made available by any Congress. We regard REA as an investment in agriculture's future.

"But the cooperatives in this field should not be satellites of the federal government, and we should make certain that as loans are repaid by each local cooperative, the sticky hands of federal bureaucrats are removed."

REA to 'Stockpile' Applications After Funds Run Out

WITH ITS telephone loan funds being allocated at a rate which will result in their being exhausted before the middle of December—instead of about the end of the year, as previously anticipated—the Rural Electrification Administration (REA) is expected to "stockpile" applications for final approval when the new Congress votes a supplemental appropriation.

Under the presently-planned procedure, staff processing of telephone loan applications would go forward just as though REA had the money to allocate, right up to final approval by Administrator Claude R. Wickard. Then, as soon as the supplemental fund is approved, Mr. Wickard would be able to sign a series of allocation orders.

As REA's telephone loan application backlog continues to rise, despite the $2,000,000 weekly allocation pace of recent weeks, there appeared little doubt that the new Congress, regardless of its political complexion, will act promptly to provide the supplemental money. Democrats and Republicans, particularly those from the farm belt, usually compete with each other in general approval of the REA programs.

One figure heard in Washington last month for the REA request for the remainder of the 1953 fiscal year, ending next June 30, was $25,000,000. For fiscal 1954, starting next July 1 (for which the federal budget requests will be submitted fairly early in the next Congress) REA might ask for $100,000,000.

For complete clarity, it should be reemphasized that when REA runs out of telephone loan money in December, it will be completely out of it, including contingency funds. The agency, under present law and interpretations, cannot transfer electrification money to the telephone program, nor allocate funds without specific authority, even though it usually delivers the money well after the allocation is made. One way to keep the allocations moving might be for the agency to get a letter of authorization from the 83rd Congress' Agriculture appropriations sub-committee chairman, but such an approach is not being taken seriously.

Providing the agency with a good argument for additional money is the fact that the backlog of held applications is still going up. The backlog, and suspension of allocations for one or more months pending Congressional action, will give REA powerful arguments for the supplemental loan authority.

Although central office equipment continues to be a limiting factor in actually putting REA-financed phones in service, the number of cut-overs of new systems scheduled for the next few months continues to rise.

Based on the latest available information, four cutovers are slated for October, three for November, nine for December (the period immediately before Christmas has al-

ways been a big one for new electrification systems financed by REA, and the same pattern is shaping up in the telephone field), and four for early next year.

Scheduled for October are cutovers at: Eastern Rowan Telephone Co., Granite Quarry, N. C.; Powell Telephone Co., Powell Station, Tenn.; Nelson-Ball Ground Telephone Co., Ball Ground, Ga.; and Piedmont Telephone Cooperative, Laurens, S. C.

Slated for mid-November are: Florala (Ala.) Telephone Co.; Ringgold (La.) Telephone Co., and Home Telephone Co., Simpsonville, S. C. Those generally set for December are: Home Telephone Co., New Haven, W. Va.; Eastern New Mexico Rural Telephone Cooperative, Clovis, N. Mex.; Winnebago Cooperative Telephone Association, Thompson, Ia.; Danielsville & Comer Telephone Co., Comer, Ga.; Badger Telephone Co., Webster, Wis.; Caprock Rural Telephone Cooperative, Spur, Tex.; Poka-Lambro Rural Telephone Cooperative, Tahoka, Tex.; South Plains Rural Telephone Association, Lubbock, Tex.; and La-Fourche Telephone Co., Golden Meadow, La.

In January, the Eureka Telephone Co., Corydon, Ind., expects to cut over. The Emery County Farmers Union Telephone Cooperative, Orangeville, Utah, and the Belmont Telephone Co., Platteville, Wis., plans cutovers in February. Slated for March is the Hancock Rural Telephone Corp., Greenfield, Ind.

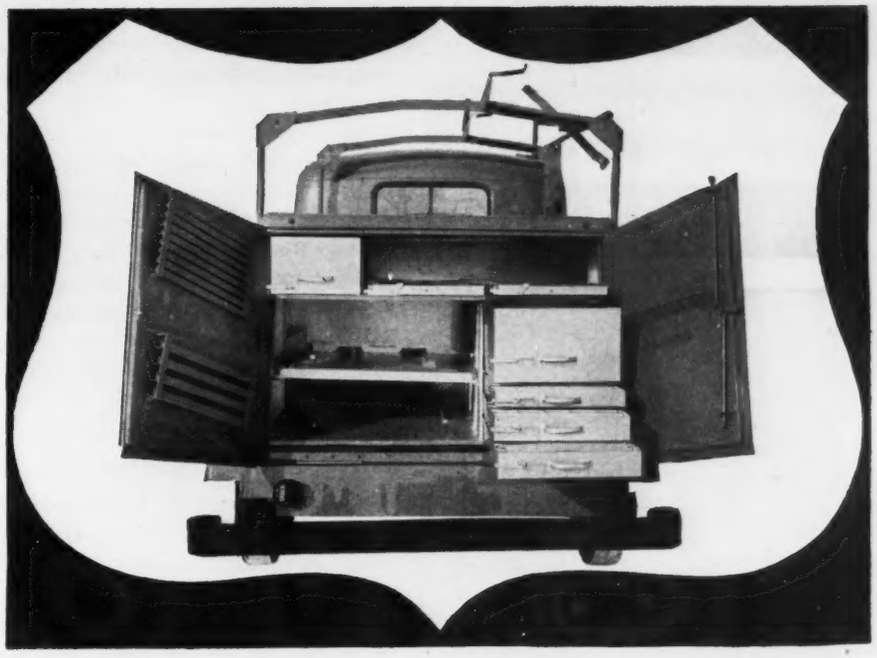
"Lead time" for deliveries of central office equipment by manufacturers now is running at about 12 months, REA sources report, instead of the previous 18 months.

New Co-op Formed In New Mexico

PHILLIP SANCHEZ has been named chairman, B. L. Battishill, vice chairman, A. H. Gerdeman, treasurer, and Oscar Ford, secretary of the Hermit Peak (N. M.) Telephone Cooperative.

A new board of directors has also been selected, retaining most of the former board and adding several new members.

The new board consists of the above named officers and Epifanio Romero, Chacon; Pablo Lopez, Ribera; F. W. Doolin, Wagon Mound; H. H. Seale, Sapello; Tom Trumbull, Buena Vista; S. Omar Barker, Tecolotenos; James Abercrombie, Anton



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The rear and side doors open to place at the disposal of the installer all the materials and tools he desires—drop wire reel, ladders, tree trimming equipment, wire and cords, screws, clamps, fuses, and all the other things that he must have on the job to avoid an unnecessary trip back to the shop. The workmanship on this body equals its efficient arrangement.

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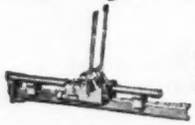

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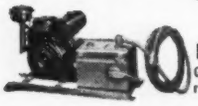
No. 795 GREENLEE PUSHER For pipe larger than 4-inch, concrete sewer pipe, large drainage ducts. Six speeds—25,000 to 150,000 lbs. pushing pressure.



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Chico, C. V. Shearer, of Mineral Hill; E. W. Phillips, Trujillo; John Cassidy, Cleveland; and Gib Sandefer, Serafina.

Cassidy, former secretary treasurer of the board, whose pressing personal business prevented him from retaining the position, gave a detailed report of the co-op action since it was first formed. More than 80 members have signed applications and have paid ten dollars towards establishing the cooperative, Cassidy reported.

New Kansas Co-op Plans REA Loan Application

AN REA FINANCED telephone service is planned for Wilsey, Delavan, Alta Vista, Kans., and an area southwest of Manhattan on McDowell creek. The Tri-County Telephone Association, Inc., of Delavan, Kans., has received a state non-profit charter, and will apply for an REA loan following a membership campaign this fall. W. Cecil Hutchinson, of Delavan, is resident agent, and William Horn, of Alta Vista, is temporary chairman.

Sales & Purchases of Independent Companies:

MILLVILLE, IND.—Judge John H. Morris has approved sale of the Millville Telephone Co. to the New Lisbon Telephone Co. The sale will provide automatic telephone service for the 170 subscribers of the Millville company through the New Lisbon exchange.

MCCRACKEN, KANS.—The Southwestern Bell Telephone Co. will take over the LaCrosse end of the Farmers Telephone Co. The Farmers company will continue to operate exchanges at McCracken and Nekoma.

ROXBURY, KANS.—After being without a telephone exchange of its own since September 1, 1952, the Roxbury community will soon have telephone service. A certificate for operation of the telephone company has been issued to Roy L. Bowen, who will operate it as the Roxbury Telephone Co.

It is expected the exchange will service some 125 subscribers in Roxbury and surrounding territory.

The late Merrill S. Reese operated the former exchange for a number of years and his son, Beverly Reese, took over the company after his father's death. Increasing costs and the loss of a large number of subscribers who discontinued their telephone service due to a proposed increase of rates made it necessary for Mr. Reese to close the exchange Sept. 1, 1951.

IRONWOOD, MICH.—The Ironwood Rural Telephone Co. has given the Michigan Bell Telephone Co. an option to purchase the rural firm's property, W. J. Helli, manager of the township company, announced recently.

Michigan Bell is expected to decide on the option on or before Oct. 20. The rural company serves Ironwood township.

FORTUNA, N. D.—Sale of the Divide County Farmers Telephone Co., for $10,000 to the Northeastern Montana Mutual Aid Telephone Corp. has been approved by the North Dakota Public Service Commission.

The sale involves the Fortuna exchange and rural lines serving about 120 subscribers.

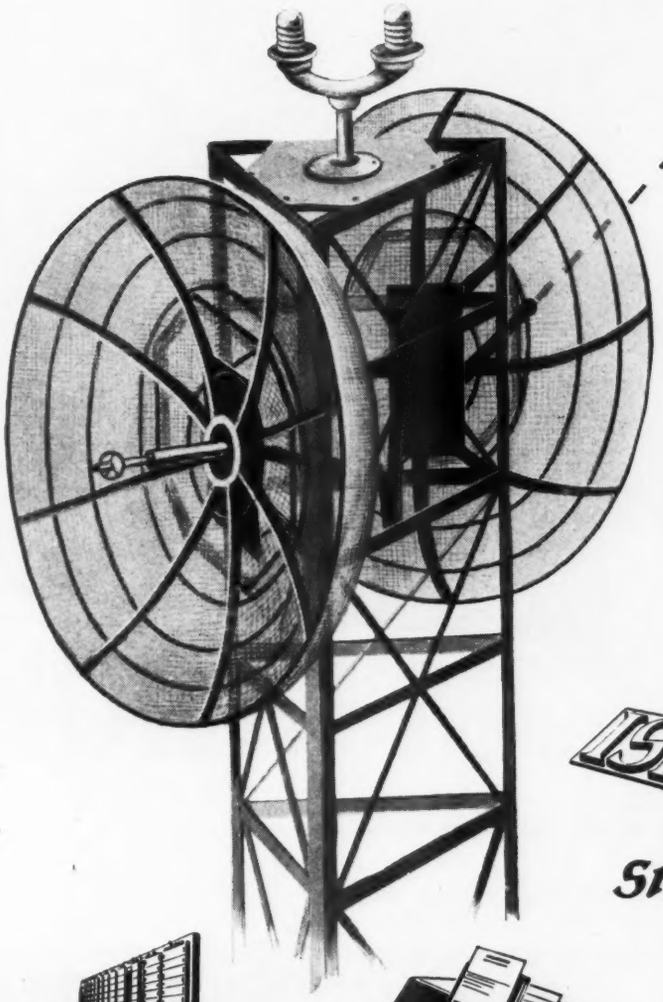
TIOGA, N. D.—Stockholders of the Tioga Telephone Co. recently voted to sell the company to Northwestern Bell Telephone Co. The vote followed a promise by Bell's state commercial manager, R. R. Borman, to "build and give service faster than anyone else."

The stockholders had three courses of action open: (1) sell to Bell; (2) sell to Northwest Mutual Aid, an REA cooperative; and (3) put up an estimated $250,000 in new capital to improve and expand the service.

The vote to sell to Bell was 502 shares favoring, 8 shares opposing. It was barely above the necessary two-thirds required for the sale, and represented considerable effect by the the Tioga Commercial Club in obtaining proxy votes. It was the first time in years the necessary number of shares were obtained to make a quorum, and probably the last time a quorum could have been reached, according to Commercial Club president Ward Barden. He estimates more than 100 shares can never be traced.

WILDROSE, N. D.—The board of directors of the Wildrose Mutual Telephone Co. met in Wildrose recently and made plans to expedite transfer of the company to the Northwest Mu-

(*Please turn to page* 95)



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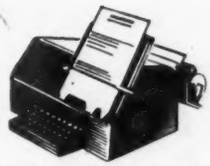

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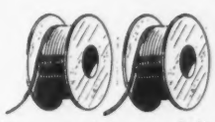

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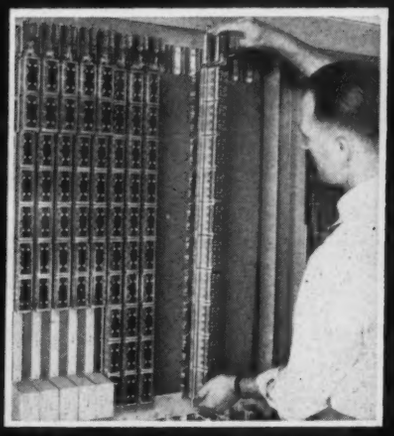
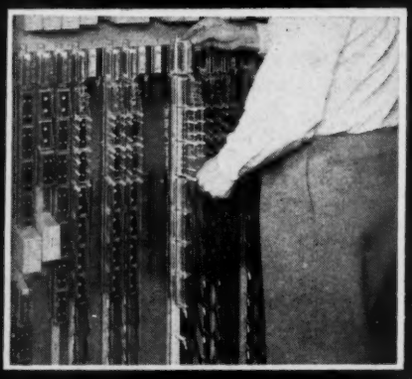
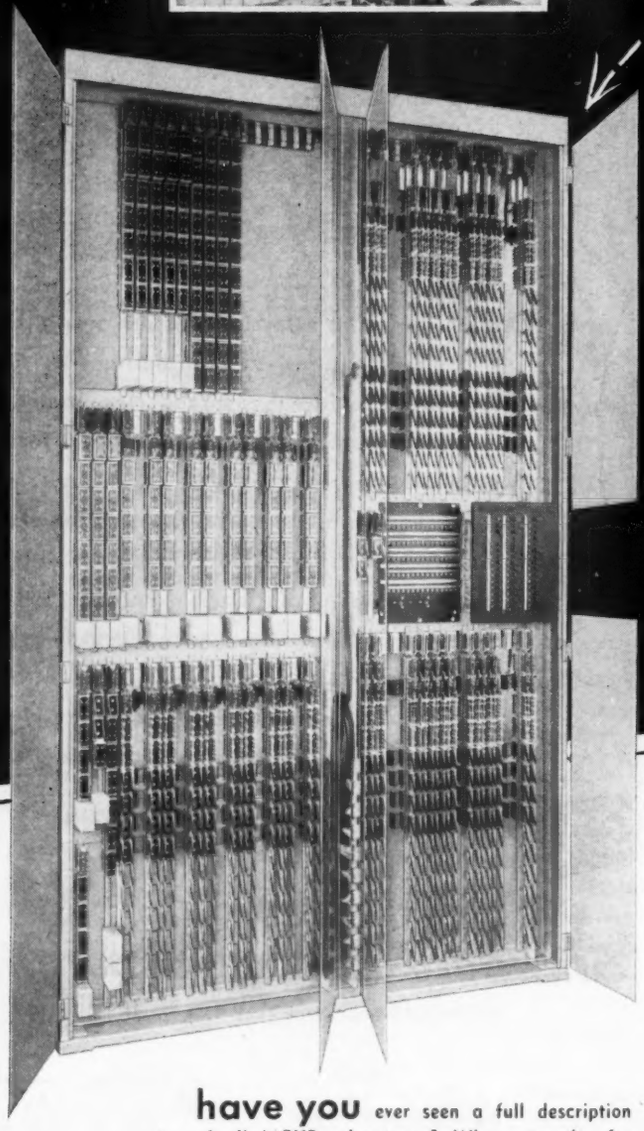


1 Since this North MCXR switchboard was installed, with open positions for expansion, need has arisen for additional lines. A local maintenance man quickly adds complete factory-wired 10-line relay strips by slipping them into position; like this, in the "future" positions; here . . .



2 If, as usually is the case, the number of lines added makes additional links advisable, the same simple procedure follows. Complete pre-wired strips are furnished which are easily snapped into position . . . here; then are connected to the rear multiples with a simple wedge-lock which maintains a constant pressure contact.



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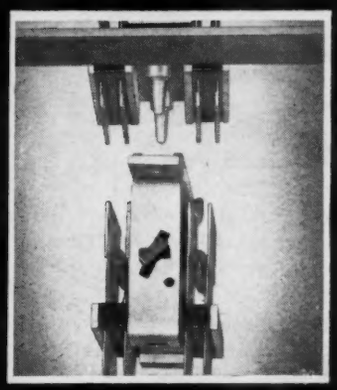

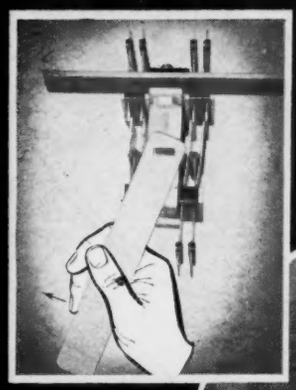

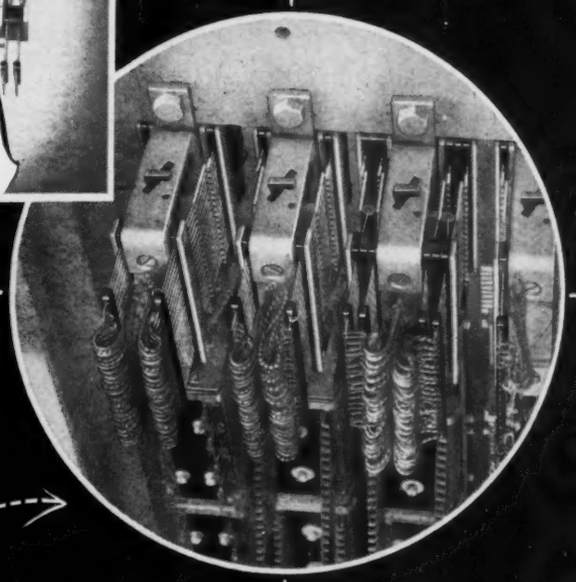

3 The line and link strips are jack-ended with North's exclusive position-and-lock jacks. Each strip comes into locking position like this . . . then, with a simple lever action, is securely locked with every lead connected through the precious metal contacts of the jack under 125 grams pressure . . . like this . . . One multiple relay is added to each of the original links for each 10-line strip installed in this manner.

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EDITORIAL

REA Goes Into High

AFTER AN organizational period during which telephone loan allocations were made in slow motion, the Rural Electrification Administration has gone into high gear in the processing of such loans.

In fact, telephone loan applications are now being handled so rapidly that there is some prospect, according to reports, that REA may run out of telephone loan funds before the next Congress meets in January and can appropriate more.

There is of course no question but that the new Congress will appropriate more money for the purpose. Both of the two major political parties have pointed with pride to the accomplishments of REA, and have in their platforms committed themselves to continue the telephone loan program.

This program is already running into big money. To September 1, 1952, REA had allocated some $86,308,500 for telephone loans. And, at that time it had on hand nearly 500 additional telephone loan applications, asking for almost $92,000,000 more.

Also, at that time, the actual cash was beginning to flow in considerable volume to earlier applicants now ready to carry on their construction work. A few of these earlier applications had actually completed their building job—five such new plants were cut-over in one recent week.

The question arises as to what the impact of this situation will be upon existing telephone companies operating in rural areas.

A considerable part of that impact will come, we think, from comparison by the public of the kind and quality of service supplied by existing companies in many places, with that supplied by REA-financed plants.

REA demands that its borrowers supply "modern, adequate and satisfactory rural telephone service". As to just what REA considers that to be, we quote from an informal description of it given recently by Mr. Claude R. Wickard, REA Administrator, at a meeting of a co-op organization in Indiana:

> "First . . . it means making service available to everyone in the territory at uniform rates. It means providing 24-hour service. It means limiting the number of people on any one line to 8."
>
> "It means a dial exchange so that there aren't long waits to get through a call because the operators are overburdened."
>
> "It means that you do not hear any ring but your own ring and you do not have the great inconvenience involved in trying to determine whose ring it may be under the old code system."
>
> "It also means that your telephone line . . . will be properly maintained and improvements made from time to time, so that your service will be as good 10, 20 or 30 years from now as anybody's service can be."

Telephone loans allocated to September 1, 1952 by REA went about two-thirds, or about $57,853,782, to 88 co-ops and only about one-third, or some $28,454,718, to 109 existing telephone companies.

We have the feeling that the Independent telephone industry should be able to use this governmental loan program to better advantage than it seems to be using it now.

It seems to us that out of the several thousands of Independent telephone companies, more than 100 or 200 or so companies should be able to use some of this government money to the advantage of themselves and the public they serve.

There need be no blanket endorsement, by the industry or any person or organization representing it, of REA telephone loans. There need be no borrowing at all unless the borrower is fully satisfied as to the terms, and as to the safety of his business, present and future, under such loans.

But we think it might in many cases be worth while to investigate fully the practicality of REA loans for the purpose of extending and modernizing Independent telephone plants.

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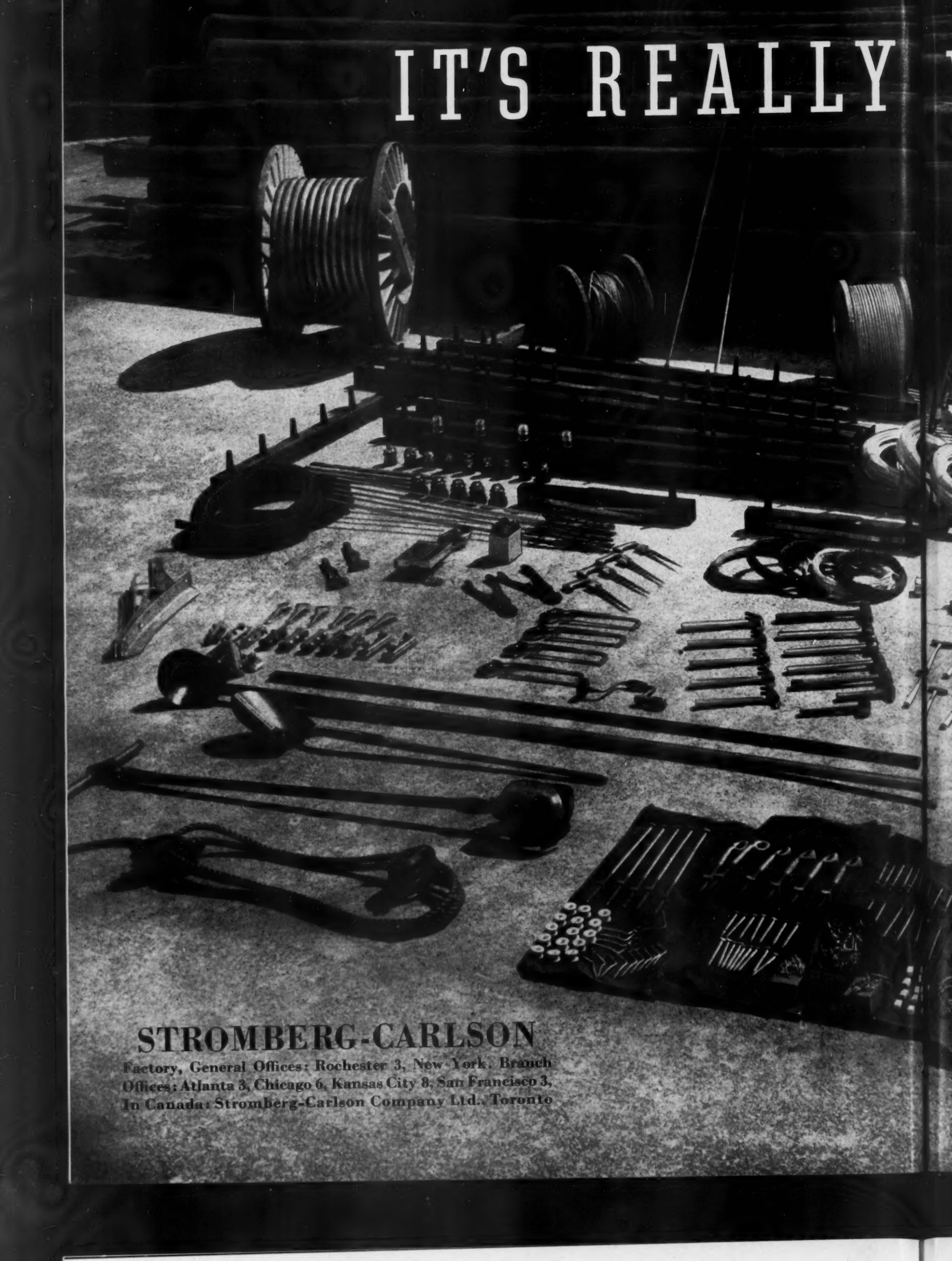
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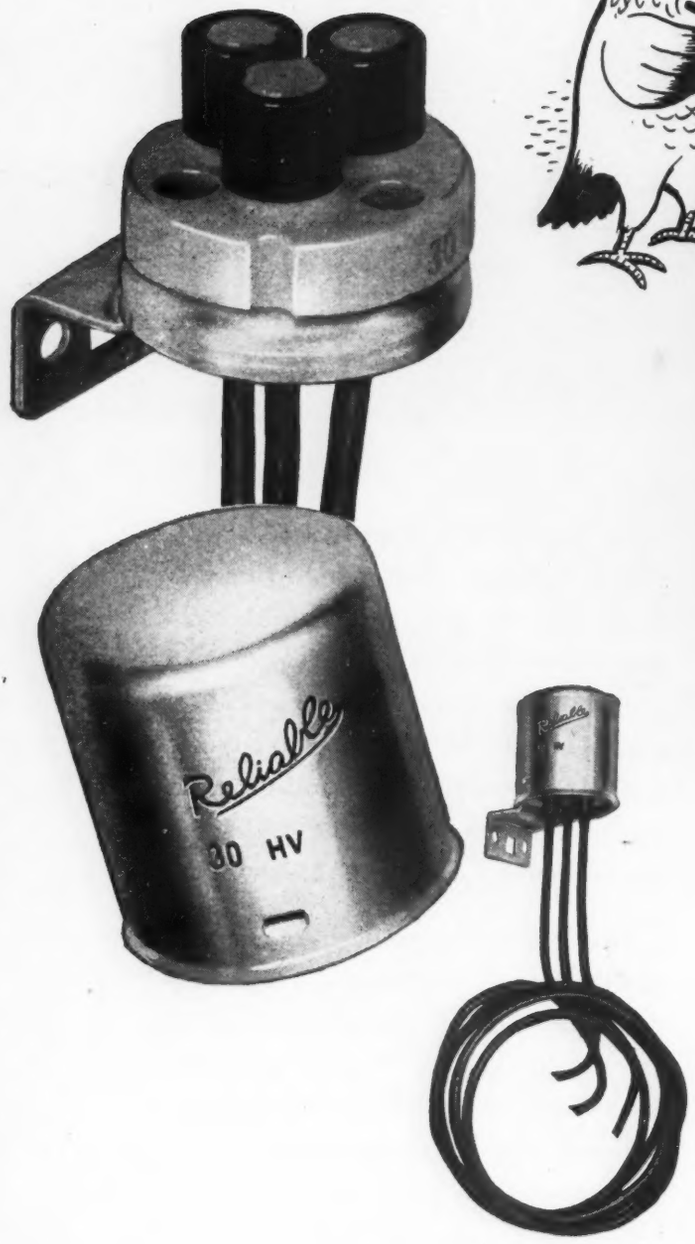

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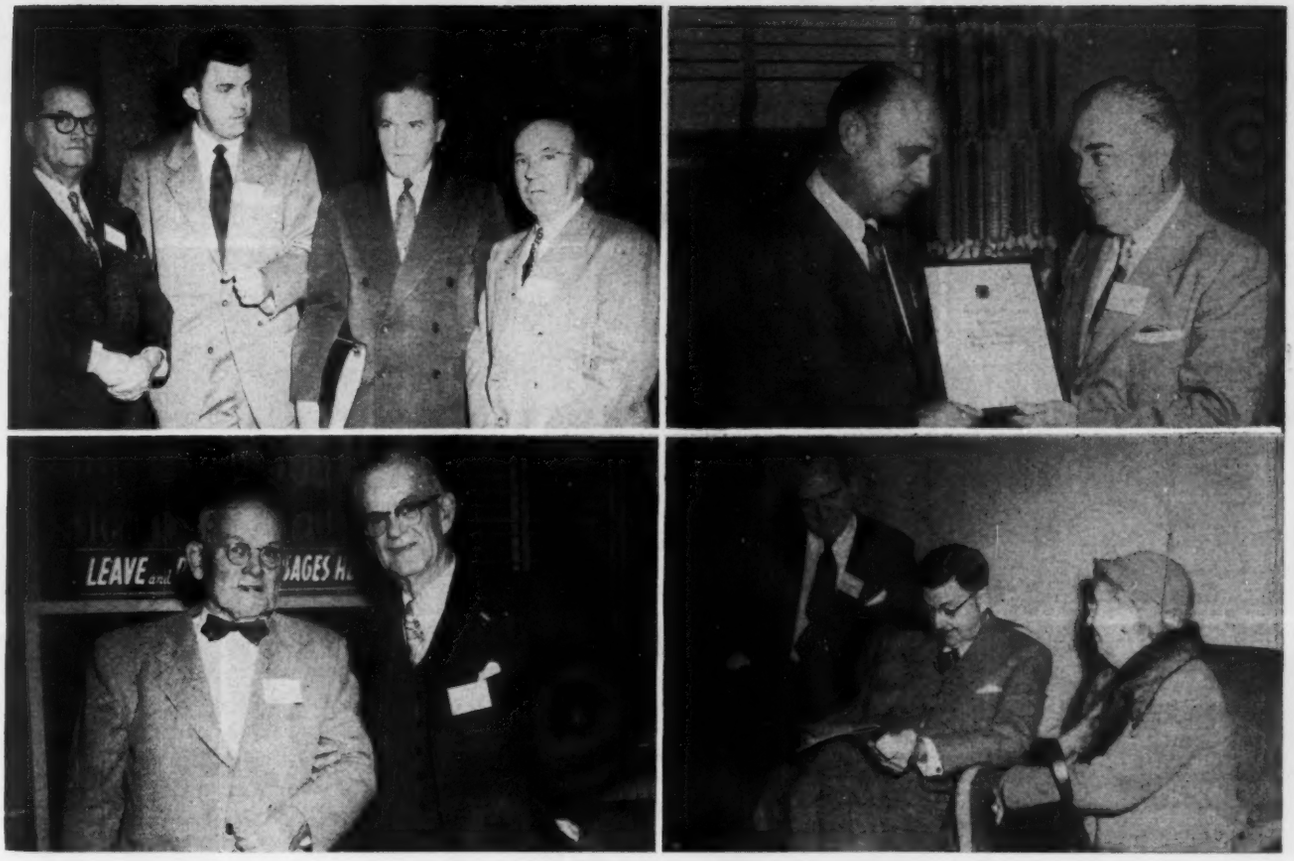

Approximately 2800 Independents attended 55th Annual Convention of the U. S. Independent Telephone Association.

USITA'S 55th ANNUAL MEETING

2800 Independents pool their abilities to prepare the industry to continue its record of accomplishment as a courier of communication.

By JOHN G. REYNOLDS

MEN AND WOMEN from the Independent telephone industry last week took a short look at the past, a long careful look at conditions of the world and the nation today, and pooled their abilities to prepare the industry to continue its record of accomplishment as a courier of communication.

Meeting at the Conrad Hilton Hotel, Chicago, Oct. 13, 14 and 15 members of the United States Independent Telephone Association heard speakers at the general sessions and departmental conferences emphasize that good telephone service depends on—(1) able employees of good spirit; (2) sound organization; (3) constant effort to improve methods and provide the best in equipment; (4) the continuing full confidence of all who have put their savings in the business; (5) constant maintenance of a tradition and policy of trying always for the best, and (6) determination to meet individual and national needs no matter what the obstacles.

The convention re-elected the following directors for three year terms: E. G. Bellamy, Knoxville, Ia.; Frank E. Bohn, Fort Wayne, Ind.; Carl D. Brorein, Tampa, Fla.; Ray Dalton, Everett, Wash.; H. E. Hageman, Lorain, Ohio; Alden L. Hart, Kansas City, Mo.; C. D. Manning, Chicago; C. C. Pearce, Riceville, Ia.; R. E. Shotts, Chicago; R. B. Still, Bloomington, Ill.; Robert C. Tait, Rochester, N. Y.; Donald C. Power, New York City.

Three new directors were elected: Hugh Barnhart, president of the Rochester (Ind.) Telephone Co. was named to

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succeed V. E. Chaney, vice president of Telephone Bond & Share Co., Chicago; Leonard Densmore, vice president of the Central Telephone Co., Lincoln, Neb., succeeds Judson Large, president of Central Electric & Gas Co., Chicago, and H. G. Allen, president of the Northwest Telephone Co., Tomah, Wisc., succeeds Burton W. Saunders, president of the General Telephone Co. of Illinois, Springfield.

The convention also approved the previously-made appointments to the board of directors of: G. A. Berting, Galion, Ohio, to succeed F. B. McBerty; C. W. Hass, Big Timber, Mont., to succeed the late John H. Wright, and Merle M. Hale, Lincoln, Neb., to succeed the late H. H. Wheeler.

The directors elected Edwin M. Blakeslee, president of the Associated Telephone Co., Ltd., Santa Monica, Calif., to succeed L. W. Hill, president of the Carolina Telephone & Telegraph Co., Tarboro, N. C., as USITA president. Other officers were elected as follows: First Vice President, Warren B. Clay, president of the Hutchison (Minn.) Telephone Co.; Second Vice President, Donald H. Campbell, president of the Rochester (N.Y.) Telephone Co. Officers re-elected were: Executive Vice President, Clyde S. Bailey, Washington, D. C.; Treasurer, Carl D. Brorein, president of the Peninsular Telephone Co., Tampa, Fla.; Secretary and Assistant Treasurer, George C. Richert, Washington, D. C., and Assistant Secretary Miss Leola D. Fitzwater, Washington, D. C.

Convention Photos

Photos on the opposite page were taken by the* TE&M *Camera during the* USITA *Convention. The November 1 issue of* FORTNIGHTLY TELEPHONE ENGINEER *will feature many additional convention photos.

The telephone industry has been President Blakeslee's career and he has shaped his career to give the most to his industry. Born in Savannah, Mo. in 1901, he completed elementary and high school there and enrolled at Stanford University in California. Graduating in 1922 with a B.A. in mechanical engineering, he continued his studies on a post-graduate scholarship and received his master's degree in electrical engineering the following year. Upon graduation he was employed for a few months in the engineering section of the Pacific Telephone & Telegraph Co. at San Francisco. Resigning in Oct. 1923, he accepted employment as an engineer with the California Railroad Commission, now the Public Utilities Commission, working with rates and tariffs, property valuations and service investigations.

Leaving the commission in December 1929, Mr. Blakeslee joined the newly organized Associated Telephone Co., Ltd., in Southern California and subsequently was transferred to the Central Group of the General Telephone System in Madison, Wisc. In 1936 he became vice president of the five companies comprising the then Central Group, and in the spring of 1944 was made president of the newly established East Central Group of companies

"Independents emphasize determination to meet service requirements."

operating in Michigan, Indiana and Kentucky. While in Wisconsin, he was elected a director of the Wisconsin State Telephone Association, serving five years in that capacity and two years as president.

With 24 years of telephone experience, both operating and regulatory, Mr. Blakeslee returned to California to become president of Associated Telephone Co., Ltd., on March 1, 1947 on the eve of the greatest and most continuous expansion in the company's history. Operating approximately 225,000 telephones at the time he became president, the company now has more than 500,000 stations in service.

For the past eight years Mr. Blakeslee has been a director of the USITA, the last two years serving as a vice president. Perhaps his greatest contribution to the Independent telephone Industry has been in connection with his 15 years as chairman of the USITA Toll Compensation Committee.

Other appointments made during the convention included the naming of three new members to the USITA Executive Committee. The new members are: C. S. Cadwell, president of Automatic Electric Co., Chicago; H. E. Hageman, president of the Lorain (Ohio) Telephone Co., and M. M. Hale, vice president of the Lincoln (Neb.)

Convention Highlights

• The USITA Board of Directors approved the following dates for the 1953 annual convention: October 12, 13 and 14 at the Conrad Hilton Hotel, Chicago.

• The 1954 USITA Executives' Conference will be held at the Broadmoor Hotel, Colorado Springs, Colo., May 10 and 11, 1954. Dates and location for the 1953 meeting have been previously announced.

• Retiring USITA President L. W. Hill, Tarboro, N. C., was presented a beautiful silver tray by the USITA Board of Directors as a testimonial from the National Association honoring Mr. Hill for his service to the Independent telephone industry during his term as president.

• The USITA Board of Directors approved the formation of a new committee to be known as the "Subscriber and Operator Toll Dialing Committee." Membership of this new committee will be announced later.

• Dwight D. Eisenhower, Republican candidate for the presidency of the United States, sent a telegram to USITA President L. W. Hill congratulating the Independent industry on its 55th anniversary and stating "the Independent telephone industry and its people exemplify the kind of organization we want to keep alive. . . ."

Telephone & Telegraph Co. They succeed: R. A. Lumpkin, president of the Illinois Consolidated Telephone Co., Mattoon, Ill.; Roy Siemund, president of the Leich Sales Co., Chicago, and Warren B. Clay, president of the Hutchinson (Minn.) Telephone Co.

The USITA Executive Committee now includes the following members: USITA President, E. M. Blakeslee; L. W. Hill, Tarboro, N. C.; F. E. Bohn, Fort Wayne, Ind.; Carl D. Brorein, Tampa, Fla.; D. H. Campbell, Rochester, N. Y.; Mr. Cadwell; Ray Dalton, Everett, Wash.; Mr. Hageman; Mr. Hale; Foster B. McHenry, Jefferson City, Mo.; and Donald C. Power, New York City.

Non-industry speakers appearing at general sessions of the USITA convention placed an emphasis on restoring confidence in the free enterprise system.

Dr. Clare Griffin, Professor of Economics, University of Michigan told the conventioners that one of the "greatest dangers was taking liberty for granted." He pointed out that "Erosion of a system comes insidiously," and warned that "socialism often has pleasant outward appearance."

Laurence F. Lee, president of the Chamber of Commerce of the United States, and James F. Lincoln, president of the Lincoln Electric Co., Cleveland Ohio, and president of the National Electric Manufacturers' Association, appeared at the final convention session on Oct. 15.

Mr. Lee stated that the story of Independent telephony should be told and emphasized that it is a "little known story."

Referring to America as one of the last surviving Democracies, Mr. Lee warned that "we cannot remain static—we must be like a magnet and draw other nations to our idealogy—or turn to theirs."

"We have failed to live up to our responsibilities," he said. "As a result we are beset by enemies within and dependence upon government help in our own nation is growing."

Mr. Lee emphasized that "teachers, professors, clergymen are spreading false idealogy among youth." He stated "the sovereignty of the states is being diminished and we are drifting toward socialism."

"Our government," he said, "is the largest land owner, largest debtor, largest lender, largest insurance agency, largest employer, largest issuer of orders and largest supplier of electric power in the USA."

Stating that business men must not be negligent in nominating and electing government officials, he said—"we should concentrate our efforts on electing men who will defend freedom . . ."

Mr. Lincoln told the convention that although the founders of our government formed it to preserve freedoms of individuals, "now government offers prosperity for all, security for all and aims to tear down big organizations to 'equalize' the economy."

Pointing out that social security takes away all responsibility from the individual, Mr. Lincoln said such philosophy results in (1) reduced work incentive, (2) increased taxes, and (3) a dominant government that must have power if it is to care for all people.

Independent Pioneers Hold Annual Meeting

THE ANNUAL meeting of the Independent Telephone Pioneer Association in the Grand Ballroom of the Conrad Hilton on Oct. 14 drew an overflow crowd that enjoyed a program described as one of the best ever presented by the Pioneer organization.

"Independents study problems of today and plan for the future . . ."

With Pioneer President Merle M. Hale, Lincoln, Neb., presiding, the Pioneers held a short business session prior to presentation of a program arranged by the Annual Meeting and Entertainment Committee under the chairmanship of Roy W. Siemund, Chicago.

New directors elected are: Ray Dalton, Everett, Wash.; J. B. Haley, Austin, Texas, and Clyde S. McFarlin, Montezuma, Ia.

Ray W. Smith, president and editor of Telephone Engineer Publishing Corp., Chicago, Ill., was elected president. Other officers were elected as follows: Vice Presidents, Frank S. Barnes, Rock Hill, S. C., and Ray Dalton, Everett, Wash.; Executive Secretary and Treasurer, Mrs. Mayme Workman, Springfield, Ill., and Secretary, J. K. Johnston, Indianapolis, Ind.

Arthur H. Motley, president of Parade Publications, and publisher of PARADE, the Sunday picture magazine, was the featured speaker at the Pioneer meeting. Discussing "*Use It Or Lose It*", Mr. Motley warned his audience that "you never lose anything possessed if you use it. You lose it when you don't use it."

Stating that the greatest freedom of all is the freedom to use what we have, Mr. Motley illustrated that if "you like what you're doing and stick to it and give it everything you've got you can still make a buck and make something out of your hopes and ambitions . . ."

He stressed that there is plenty of opportunity for the "small guy" or the "small business" and referred to the Independent telephone industry as a shining example of small business at work, performing and providing servive and proving to a lot of people "that you can give good service without being a billion dollar corporation."

Following Mr. Motley's address, The Northerners, one of the finest singing groups in the country, provided the Pioneers with a pleasant musical interlude. The Northerners have been sponsored by the Northern Trust Co. of Chicago for 21 consecutive years in radio broadcasts every Tuesday night at 8:30 over Station WGN, Chicago, and their presentation of the music that has intrigued a generation of listeners was one of the highlights of the Pioneer meeting.

Convention Pictures

Additional convention pictures from the* TELEPHONE ENGINEER *Camera will appear in succeeding issues. This issue was printed immediately following the convention, before some of our pictures were received from the engraver, to enable us to bring you the report while it is news.

ONE MAN'S VIEW OF OUR INDUSTRY

"Our industry must stand or fall on its ability to perform a vital service . . ."

THE FIRST GENERAL session of the USITA Convention on Tuesday morning October 14 featured the address of the retiring president of the National Association, L. W. Hill, president of the Carolina Telephone & Telegraph Co., Tarboro, N. C. Discussing "One Man's View of Our Industry," President Hill emphasized that the added weight of new and additional plant which the industry must have to meet the constantly rising demand for telephone service and the lack of revenue dollars to make investment in such plant attractive, is the biggest hurdle facing the industry today.

"It was the biggest hurdle facing us a year ago, when I took over this office," he said, "and it will probably remain the biggest hurdle for the indefinite future. We are all too familiar with the contributing factors—the difficulty and delay in obtaining high enough rates, and the rapidly increasing operating expenses, payrolls, and so on. . . ."

Backwards Looking Rate Control Standards

MR. HILL warned that there is one particular danger to the industry's ability to keep pace with our public service demands.

"It is," he said, "an insidious danger because it operates so gradually and quietly that the irreparable harm may be done before we are aware of it. I refer to the deterioration of our earnings position because of the application of backward-looking standards of rate control.

"It seems to me, in the light of some recent rate case decisions, that our telephone industry could become the victim of what I call 'fillyloo bird' regulation. I suppose most of you have heard about that fabulous bird—the 'fillyloo bird'—which flies backwards. The reason he flies backwards is because he doesn't care where he's going, he's more anxious to look behind and see where he has been.

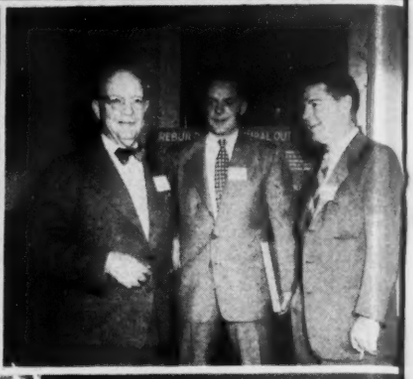
"When a regulatory commission fixes the rates for a telephone company on the basis of the cost of capital to that company a year ago, or two years ago, we are getting a backward-looking brand of rate control. We all know the cost of money was cheaper one or two years ago than it is today. And if the inflationary spiral continues, it is likely to cost still more a year or more from today."

Mr. Hill stated another bad effect of restricting utility earnings to the bare cost of raising capital in the past, is the discouragement of the average type of investor, who wants to put his money into an expanding business with the expectation that he will share in that growth.

"Limiting a telephone company's return to its past cost of capital," he said, "cuts off all such hope of its investors for an increase in the equity value of their holdings. It places an absolute ceiling on future earnings, by chaining them to a percentage standard of the past—regardless of how much the company's business operations may grow and expand."

Mr. Hill stressed that nothing is more likely to drive away the smart investor to other fields where his hope of future reward is not foreclosed.

"Eventually," he said, "it will drive away the investors who are not so smart. When that time comes, our cost of capital will naturally increase. But with the rate standard always fixed on a past basis, we can never catch up with the earnings we ought to have in order to do busi-



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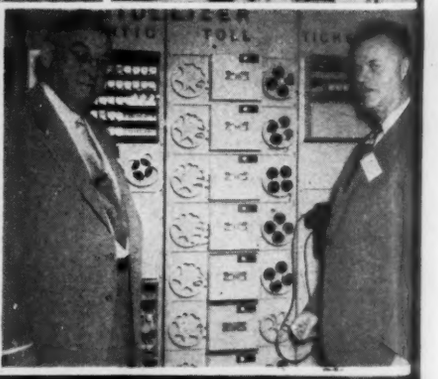


REBUILDING THE RURAL OUTSIDE PLANT

ness and attract investors at the time rates are fixed."

Describing the situation as a vicious circle which could eventually undermine the industry's ability to serve the public satisfactorily, Mr. Hill commented that "this discouragement of investment in public utility operations, especially the telephone business, comes just at the time when so many of our companies are sorely in need of new capital to expand and improve plant facilities to meet our service demands."

He pointed out that the ready answer, which the "starvation rate" advocates have for this argument, is that "our investment in industry, especially Bell system securities, continues to enjoy a good reputation."

"But I submit," he said, "that the time to protect a good reputation is while there is still something left of it. When a reputation is ruined, it is usually too late to do much about saving it. Let us not delude ourselves because the investing public at large, as distinguished from institutional investors and professional analysts, still have a good opinion of telephone company investment. We must keep in mind that there is a lag between the time the professionad security analysts start grumbling, and the time when the same security loses its appeal on the exchange or over the counter. . . ."

Mr. Hill added, "I am well aware that there is not a single public service commission in the whole country, to my knowledge, which would willingly or knowingly permit any telephone company to sink into a state of financial incompetence. There is no commission, to my knowledge, which would deliberately impair a company's ability to fulfill its service obligation by withholding necessary rate relief."

"That," he said, "brings this problem right home to us—the operating people. We have not been able to persuade or convince the commissions in all cases. I have no doubt that the failure of our industry to make a good case, on the economic principles which should control rates, accounts in large measure for the fact that the industry's dollar return and percentage rate of return are on a downward trend, and the basis for the quality rating, which some of our larger company securities have traditionally had over industrial securities, is slowly being drained away."

REA's Rural Telephone Program

DISCUSSING the REA Rural Telephone Program, Mr. Hill stated, "one of the problems which I earnestly hope will be cleared up in the near future is the apparent zeal of the REA in Washington to finance cooperative operations which tend to absorb or compete with existing private company operations."

"This was not the intent of Congress," he said, "as the language of the Rural Telephone Loan Amendment to the REA Act plainly shows. While instances of this have, so far, been relatively few, the possibilities are disturbing.

"Most disturbing of all to me is the philosophy concerning area competition in the telephone business displayed by those in charge of administering REA. . . . Mr. Wickard is reputed to have flatly rejected what I have long supposed to have been a well established guiding principle of public utility regulation in this country; namely, that the public utility business by its very nature should be a protected territorial monopoly, in which commission regulation is substituted for the competition we find in non-utility business. Wickard said that is a dangerous attitude which is unfair to the customer.

"I'm glad to say, in all fairness, that Mr. Wickard goes on to deny that REA is trying to create more competition for the telephone companies.

"But it seems to me very strange that the old idea of dog-eat-dog competition, service area battles, with all the wasteful duplication of facilities, should be revived under the guise of giving the subscribing public a better break. Those of us—and I'm sure that this includes many of you here in this room—who were in the telephone business during the old days of cut-throat competition, know that it was anything but a break for the subscriber. It took the industry and the public service commissions a long time and a hard time to stamp out that situation, which often led to two, and even three, competitive telephone operations in the same area. To repudiate the present regulatory principle of protected service area would be, to my mind, turning the clock back. I hope that we can get more clarification on this sort of thinking in Washington in the near future."

Explaining that the National Association has never taken any position critical of REA loans to private companies or non-competitive coops, Mr. Hill said, "at our executive meeting last Spring, I believe it was the sense of that meeting that any member company whose financial affairs were such that it could not get adequate financial assistance from banking or commercial sources, should feel free to avail itself of the low interest, long-term credit of an REA loan. . . .

"Our main concern as an industry, it seems to me, should be to seek an administration of REA loans strictly along the lines intended by Congress. The Rural telephone loan law was not initiated to spread competition, nor to launch and expand the cooperative movement, per se, in the telephone business. It was to assist the telephone industry to bring service to the farmer or to improve the service he already had. I hope that we can work out a better understanding about REA loan operations along these lines, in the future."

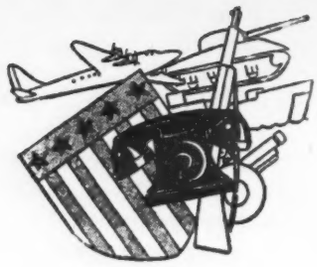
Mr. Hill pointed out that the problem had been discussed with Administrator Wickard and key members of his telephone staff.

He reported that Mr. Wickard stated without reservation that where commercial telephone companies were able and willing to provide modern and adequate telephone service he preferred that the industry should do the job. He further stated that if money was available through private or commercial sources, this was desirable but that if adequate funds could be obtained only from the REA, he much preferred lending the money to a commercial telephone company than to a newly formed telephone cooperative.

Material Controls

DISCUSSING emergency material controls Mr. Hill stated that when he left the directorship of the NPA Communications Equipment Division last October, the problem of allocating scarce materials among telephone companies and other essential users was much more acute than it is today.

(*Please turn to page* 78)



Rate Proceedings in an Inflationary Economy

"Finding a rate base by deducting the depreciation reserve from the original cost has no place in an inflationary economy."

ARTHUR E. NELSON, attorney-at-law, St. Paul, Minn., and former United States Senator from Minnesota, told the USITA convention—"In order that a fair return may be determined in the fixing of rates for public utilities, obviously, it is necessary to determine a *rate base* and a *fair rate* to be applied to that base in order to arrive at a fair return."

Stating that the most disturbing development in rate regulation since the Hope Gas case has been the tendency on the part of some commissions to take the "easy" way of determining a rate base by deducting the depreciation reserve from the original cost of the property, Mr. Nelson pointed out that other commissions, even in those states which require that the rate base shall be "fair value" have given "lip service only to present-day values and have found the rate base in the same manner."

"The so-called net investment theory—that is, finding a rate base by deducting the depreciation reserve from the original cost—has no place in an inflationary economy," he said.

"Such a theory," Mr. Nelson emphasied, "is neither fair nor realistic and works to the disadvantage of the owners of utilities in their efforts to obtain capital under today's expanding economy. . . ."

Mr. Nelson warned that if utilities are to be accorded the same treatment which unregulated industries have in an expanding economy, commissions must recognize the incomparability of costs expressed in normal dollars in relation to the devalued dollar of today.

"Dollars have only the value represented by their buying power," he said. "When this buying power has declined approximately 50 percent below normal, as it has today, costs in 100 percent dollars cannot be compared with costs in 50 percent dollars. The original cost of the physical plant of utilities of today represents to a large extent 100 percent dollars. The use of original cost as a measure of present value is, therefore, only valid if adjustments are made to reflect the price trends which would disclose fair value as of today. Such trended costs would be equal to or would exceed the reproduction cost of the same property. Trended costs would reflect the present cost of constructing the property which has been installed piecemeal over a period of years while the reproduction cost represents the cost of reproducing the property on a wholesale basis. The Courts have repeatedly emphasized the importance of present costs as being indicative of present value and future value. Commissions which fail or refuse to consider present costs in rate making display evidence of outmoded thinking and perpetrate injustices upon utilities by reason of the fact that their discretion does not keep abreast of economic tides.

"Still another fallacy in using original cost less the depreciation reserve as an index of value for rate making purposes is that the depreciation reserve does not and is not intended to reflect the actual depreciation in the property. In its broadest sense, depreciation is a decline in value due primarily to the use of property over a period of time. The extent to which this decline has occurred is a material factor in determining to what extent an item of property is as good as new. It is, therefore, not an economic theory, not an hypothesis—it is a fact demonstrable and susceptible of proof. Difficulties may occur in its measurement, but such difficulties do not diminish its factual character any more than does the difficulty of proof in any factual issue presented for judicial determination. . . ."

Mr. Nelson commented that the nature of depreciation has been clouded by the accounting concept which seeks to anticipate or reflect in dollars the probable extent of future depreciation.

"To accomplish this," he said, "a corporation sets apart a portion of its annual earnings to establish and maintain a so-called depreciation reserve. As I have stated, the amount so reserved has not, and is not represented as having any direct relation in fact to the actual

decline in value. The depreciation reserve is a method by which a portion of the earnings is withheld from distribution to stockholders to provide for the original cost of items of property which in the course of time become useless and are retired from service. Cautious management would seem to dictate that the amount of such reserve should be excessive rather than inadequate. The excess can do no harm, the inadequacy could embarrass the financial stability of the corporation.

"The amount of depreciation actually existing can be determined only by a physical examination of the property. The depreciation reserve is no evidence of the factual extent of depreciation and is not an element to be considered in the fixing of value for rate making purposes. Furthermore, depreciation in the property when found must be deducted from the present day reproduction cost of the property and not from *original cost* in determining such value. The original cost in dollars—that is the number of dolars—does not depreciate. It is property which depreciates. . . ."

Mr. Nelson warned that the more conservative commissions become, in freezing values to outmoded standards, or in their unwillingness to recognize the influence of economic conditions on value, the less attractive become regulated industries to private funds.

"It is not a radical idea to suggest that if private enterprise is not given a generous protection in regulated industries," he said, "the appeal of government ownership, with all of its dangerous implications, is given support as the only resort for funds. . . ."

Discussing the lag between the time of filing a rate proceeding and the effective date of an order of the commission fixing rates for the future, Mr. Nelson stated, "The lag in the regulatory procedure is most damaging to a utility during a period of inflation.

"Amazingly," he said, "the only commission, to my knowledge, that has found and put into effect a reasonable solution to this problem is the Board of Public Utility Commissioners of Alberta, Canada—the province in our neighboring country which only a few years ago was promoting socialistic experiments. In a decision on March 29, 1952, on an application by Northwest Utilities Limited for a revision of its customer rates (File PU 2742), the Commission said as follows:

> 'A criticism directed against rate making is the lag which occurs between an application for revision of utility rates and the announcement of the new rates. If an increase is warranted and if put into effect only at the time of decision, then the utility suffers a loss due to the lag between the two dates. To avoid loss, the Board has decided that any deficiency of earning (transitional loss) should be computed and added to the rate base to be written off over a period of years.
>
> 'The Board must emphasize that its function is to fix just and reasonable rates. Merely because a utility is regulated does not mean that the Board has power—if a homely phrase may be permitted—to run the utility into the ground. As has been stated by the Board in previous decisions the rates which it determines must be just to the utility and fair and reasonable to the various classes of customers.'

"In justice to utilities applying for rate adjustments, the commissions in our own country could very well follow the decision of the Alberta Commission."

QUOTES

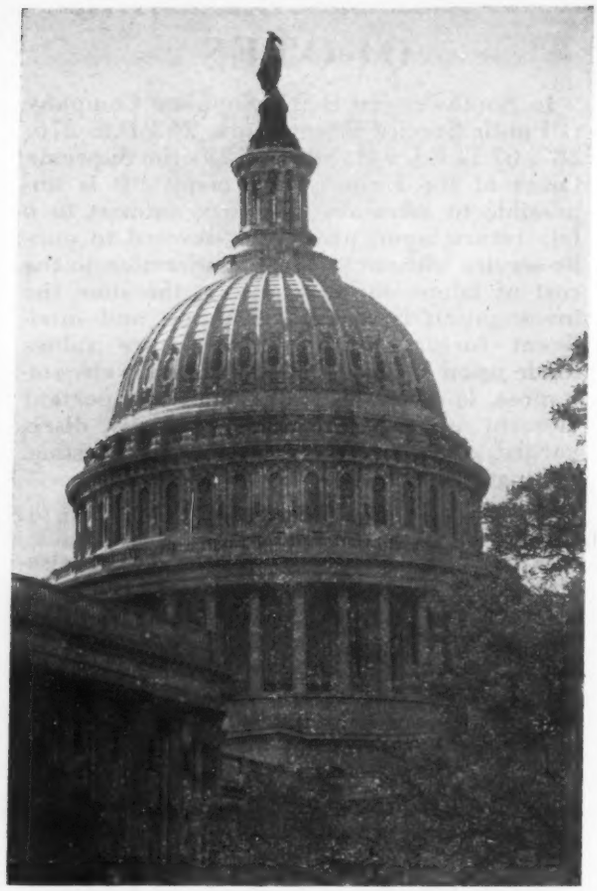
In Southwestern Bell Telephone Company v. Public Service Commission, 262 U.S. 276, 287, 67 L. Ed. 981, 985 (1923) the Supreme Court of the United States said: "It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc. at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded, such a forecast becomes impossible. Estimates for tomorrow cannot ignore prices of today."

The United States Supreme Court elsewhere has stated: "* * * the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property which legally enters into the consideration of the question of rates, has increased in value since it was acquired the Company is entitled to the benefit of such increase."

Mr. Nelson said another disturbing feature in attempting to protect the financial integrity of utilities in an inflationary economy is the failure on the part of most commissions, in fixing rates, to recognize the fact that the rates when fixed, based on prior operations, will not ordinarily provide a return to a utility, at the time of the entry of the order, or for the future in an amount to which the commission has found the utility is entitled.

"Chairman Huls of the California Commission in an address before the Public Utilities Section of the American Bar Association at San Francisco a short time ago, pointed out that some commissions have attempted to fix rates to give recognition to this attrition. He said that when a rate of return is decided on, these commissions, realizing that utilities in the past actually have not experienced that rate of return, due to increasing capital investments to meet their enlarging customer demands, and increasing expenses, have made an allowance for that attrition by adding various fractional percentage points in the return. By this method, at least some if not all of the deterioration in the return which otherwise would occur has been prevented. Lack of recognition by commissions of this attrition in earnings, due to continuing inflation, has resulted not only in losses to the utilities but also in a multiplicity of rate proceedings at added cost to utility users and to the taxpayers.

"Unless commissions and courts orient their thinking," Mr. Nelson said, "in their deliberations in rate proceedings to the economy of today and provide in their orders for rates to utilities which will give a fair return for the future, they must accept the greater responsibility for ultimate failure of utilities and especially of independent telephone companies to obtain funds for extensions and improvements and to give to the public the service to which it is entitled and for which it is more than willing to pay.—THE END.



A Report on Washington Affairs

"Telephone rates have lagged far, far behind."

CLYDE S. BAILEY, USITA executive vice president, told the convention the telephone industry is an industry rich in intangible things, rich in experience.

"It is," he said, "endowed with a lusty physical, technical and intellectual vigor which has enabled it to accomplish astonishing results as a courier of communication.

"It is not by accident that plant investment of Independent companies during the past 10 years has increased from a half billion dollars to a billion, 300 million dollars; that the number of Independent telephones has increased from 3,025,000 in 1941 to 8,200,000 at the end of 1951, that gross operating revenues during the past 10 years have increased from 125 million dollars to more than 300 million dollars.

"Does anyone doubt that long before another 10 years have passed Independent stations will reach the 10 million mark and that plant investment will reach at least 2 billion dollars?"

Stepping up Regulatory Processes

DISCUSSING the vast sums of money which have been required and will continue to be needed to fill the seemingly unlimited demands for telephone service, Mr. Bailey referred to a recent article by President Jackson Martindell of the American Institute of Management. In the article Mr. Martindell said that unless a sound approach to the pricing of utility services in an inflationary economy can be developed, informed investors "will soon follow the example of government savings bond holders in getting out from under."

"What will happen," Mr. Bailey asked," if a sound approach is not found and Mr. Martindell's prophecy comes true?

"What will happen when the indispensable man in a free economy has flown the coop?

"Will there be need for a regulating commission when the long arm of a paternalistic government reaches out in order that the public may continue to enjoy a vital service?

"Will there be need for company management, at least the present management, when the withering breath of bureaucracy touches what was once private property, brought into being by private investment?

"What should the inevitable answers to these questions suggest?

"Don't they suggest that something is wrong with the telephone pricing system? Don't they suggest that we have been entirely too conservative in determining the characteristics of our telephone service price structure? Shoes have gone up 155 percent; washing machines 109 percent; coffee has gone from 24 cents a pound to 77 cents—a 300 percent increase. When a waitress in this hotel drops a coffee cup, there goes 38 cents; in the good old days it was a nickel.

"What has happened to telephone rates in the meantime? That is another story. Telephone rates have lagged far, far behind.

"As Mr. Martindell pointed out, in the dilemma that faces all utility industry the regulatory commissions are partly at fault. I assure any representative of a regulating commission who may be present that I speak as a friend of regulation, an activity with which I was identified for more years than I have been in the telephone business. I speak as one who is convinced that ways must be found to make regulation work if the unhappy alternative of deeper government intrusion is to be avoided."

Commenting on the seriousness of the matter, Mr.

Bailey stated—"I am quick to concede, if not allege, that commissions on the whole have shown a realistic understanding of the problems confronting them. The record of some public service commissions, on the other hand, is hardly such as to inspire in us any sublime faith in the infallibility of some of our public servants. Merely because they are invested with quasi-legislative powers does not in itself magically endow them with the necessary wisdom to deal with the complicated, vexatious economic, engineering, traffic and accounting matters that are encountered in the trial of a rate case.

"Let us in a spirit of humility continue to be frank. If a regulating commission were talking about us he could, probably with equal accuracy, assert that mere engagement in the telephone business does not automatically endow a man with the necessary brains to do the kind of telephone job good conscience and the public interest require.

"At the same time I am sure that most commissions would agree that telephone companies on the whole are doing their very best to meet the needs of the public they serve."

Mr. Bailey suggested that commissions should make such adjustments in their procedures as to give recognition to the broad economic factors with which utility enterprises are confronted in a period of inflation.

"They should also take measures to avoid the delays that have been the subject of so much criticism in recent times," he said." There can be due regard for due process without the process of undue delay which can amount to a denial of justice. . . . Telephone companies in the light of their low earning record, in the light of unprecedented plant expansion, in the light of their service extensions and improvements deserve as their heritage more of the green pastures of fair and prompt regulation and more of the sweet zephyr breeze of good will of an informed public."

Some Association Activities

PRESENTING an accounting of stewardship and a summary of a few specific things to which the National Association has devoted attention during the past year, Mr. Bailey described the following activities:

O-P-S AND INTERVENTION IN RATE CASES:—"As everyone knows, the rates of telephone companies and certain other utilities are not subject to control by the Office of Price Stabilization, thanks to language written into the Defense Production Act exempting 'charges for property or services sold for resale to the public.'

"Notwithstanding the existence of those words, fears late last fall began to develop that the O-P-S in the exercise of so-called 'inherent power' intended to become active in certain rate cases. In view of this development and to make doubly sure that the O-P-S would keep to its prescribed knitting, Congress when adopting amendments to the Defense Production Act in July of this year added an express prohibition—

> 'That the Office of Price Stabilization shall not intervene in any case involving increase in rates or charges by any common carrier or other public utility except as provided in the preceding proviso.'

"The 'preceding proviso' relates to cases in which rates are involved for the property or services which are sold for resale. Telephone companies have nothing to sell for resale.

"Nothing could now be plainer than that Congress does not want the O-P-S to intervene before regulatory commissions in rate cases unless they involve rates of a particular kind—and that kind does *not* include telephone rates. The Senate and House Banking and Currency Committees in their respective reports on the amended legislation castigated the O-P-S for getting into utility rate cases beyond the intended authority."

MCKELLAR-DAVIS HIGHWAY BILL:—"To Independent Telephone companies one of the most important bills introduced at the last session of Congress was the McKellar-Davis bill . . . . S. 2585 and H.R. 6697 . . . . providing for absorption by the federal government of costs incurred by telephone companies and other utilities in removing poles and other facilities when highways under federal grants are being constructed or improved. . . .

"The McKellar-Davis bill did not make such progress at the session of Congress which adjourned last July. The U. S. Bureau of Public Roads, an agency functioning under the Department of Agriculture, is fearful that fewer roads will be built if federal appropriations are used in reimbursing utility companies for their relocation costs. . . . The bills died with adjournment of the last session and will have to be re-introduced at the next session if they are to receive consideration. In the meantime Senator McKellar, co-author, has been retired to private life by the voters of Tennessee. In the weeks that intervene before the convening of Congress next January telephone companies would do well to bring their viewpoint as to the merits of this legislation to the attention of the members of their Congressional delegation whenever opportunity affords. Maybe the cumulative effect of such action, especially if similar action is taken by other interested utility groups, can ultimately produce the stimulation needed for enactment of this legislation."

RADIO AND OUR SECTION 2(b) (2) EXEMPTION:—"Independent companies will recall the concern of our Association over possible loss of their Section 2(b) (2) exemption from F-C-C jurisdiction if they utilize radio in telephone operations. The Rogers bill, H.R. 4309, drawn by us and introduced at our request, designed to protect the exemption, was pending in the House Committee on Interstate and Foreign Commerce when Congress adjourned. It was impossible to obtain a hearing owing to the large number of other bills on its docket which it believed should be given prior attention, and owing to the other circumstance immediately to be mentioned. . . . In view of the hostility to the Rogers bill which is entertained by the F-C-C, it can be seen that the job of obtaining a hearing on this measure at the next session, as at the last, is going to be a difficult one. We shall, however, ask that the bill be reintroduced and more strongly than ever seek a public hearing."

MINIMUM WAGE BILL:—"Congressman Dollinger's Bill H.R. 3622 to increase the minimum wage to $1.00 and repeal our 750-station exchange exemption together with certain other exemptions under the Wage and Hour Act got nowhere at the last session. No hearings were held. That a similar measure will be introduced in the 83rd Congress to convene in January, can be expected.

"This legislation is sponsored by the Communication Workers of America and its parent union, the C-I-O. The C-W-A has been gunning for our exemption for some years. Modesty and realistic recognition of economic

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Accounting Conference Digs Into Depreciation

"Rate processes must be speedy in order to keep pace with the change in the economic climate."

ACCOUNTING executives of Independent operating companies on October 13 participated in a conference presided over by E. J. Ward, chairman of the USITA Accounting Committee. Meeting on the first day of the USITA Convention in Chicago, the conference group heard timely discussions of subjects ranging from assistance from regulatory commissions to depreciation.

The Accounting Committee report, presented by Mr. Ward, dealt mainly with the recently approved rules concerning continuing property records. Mr. Ward stated that "as a step in the general relaxation of the previous requirements for continuing property record keeping, the FCC decided that no company under its jurisdiction would be required to keep such records unless their total plant value amounted to $8,000,000 or more. The previous limitation had been based on annual gross revenues of $2,000,000 or more."

"On September 3, 1952," he said, "the FCC issued an amendment to Part 31 of the Uniform System of Accounts. . . . The net result of this order is to eliminate much of the detail previously required in keeping cost data by individual items in such accounts as 231, 241, 242 and 243. As written in the revised instruction, it is possible to carry average costs for each group of units in these accounts. In the remaining plant accounts, the amended provision also gives the operating companies much more latitude in setting up percentages to be applicable to various parts of the units making up the investment in these accounts."

Keeping Regulation In Pace With The Economic Conditions

EDWARD E. KNAUB, chief accountant of the Public Utilities Commission of Ohio, told the accounting Conference—"in these times of inflation, or in times of deflation such as occurred during the 1930's regulation and regulatory procedures must be such as to accomplish the following three things:

"First, the regulatory formula for the fixing of rates must properly take into account the true effects of the existing inflationary or deflationary economy.

"Second, since rates are made for the future, the process must take into consideration economic and financial conditions which are likely to prevail during the period of effectiveness of the rates set, and—

"Third, the regulatory process must be speedy in order promptly to put into effect any changes necessary to keep pace with the change in the economic climate."

Mr. Knaub emphasized that a regulatory formula for the fixing of rates which will properly reflect the true effects of inflation requires, first, that the statutes under which the commission must operate, provide a basis which will achieve this result; and second, that the accounting process which is used to set forth the results of operations for the period must correctly reflect the true result.

"I know," he said, "of no state statute which would prelude a commission from properly taking into account the effects of inflation, although the laws in some states may permit this to be done in a more rational manner than do others. There is considerable doubt, however, that 'generally accepted principles' of accounting properly and correctly distinguish in the accounting results between the return *on* capital and the return *of* capital."

Mr. Knaub explained that the law of Ohio enables the achieving of equity in periods both of inflation and deflation, whether or not the accounting process clearly distinguishes that portion of gross income which represents return *on* capital from that which represents return *of* capital.

Discussing the second requirement (taking into consideration economic and financial conditions likely to prevail during the period of the effectiveness of the rates set) Mr. Knaub stated that in Ohio the law specifically requires the filing of a statement of the income and expense *anticipated* under any application for increased rates.

"The Ohio law," he said, "is perhaps more specific on this point than the laws of many states, although it is inconceivable that any commission is precluded from giving consideration to such forecasts of income and expense. In passing, it should be noted here that the burden of proof is on the utility companies, and there is great need that more of them improve their methods of

forecasting so that the regulatory commissions may give greater consideration to anticipated conditions."

Regarding the third requirement (speedy regulatory processes), Mr. Knaub emphasized that "this is the place where a great amount of work needs to be done, both on the part of the commissions in stream-lining their procedural handling of cases, as well as on the part of the companies, both as to timely filing of applications, sound handling of customer and public relations to prevent tactical delays, and in thorough preparation of their cases to facilitate prompt decisions on the part of the commissions."

Mr. Knaub pointed out that the Ohio Commission has taken steps which have resulted in an improvement in the disposition of rate cases.

"We have," he said, "experienced lags of from six to as much as 20 months from the filing of an application to a final order with respect to the rates proposed. This lag, coupled with undue delays in filing applications, tactical delays, etc., has had an adverse affect, not only on the economic health of the companies involved, but has probably resulted in higher rates than otherwise might have been necessary due to the higher money costs which must be paid to compensate for the element of risk due to such lags. . . .

"Our solution of the matter was, in reality, so simple, that it now makes us wonder why it was so hard to find. After a prompt check of the accounting data to verify the return anticipated under the proposed rates, we divided this return by a rate of return figure to ascertain the amount of rate base which would be required to support the application. In these computations we use a rate of return which for the type of business involved would be considered a minimum fair rate of return. The problem then limits itself to determining the probability of the existence of a true rate base in excess of that necessary to support the application. In virtually every case this can be determined by means of an office check without the necessity of special visits to the field."

Mr. Knaub explained that Ohio commission engineers in their normal work are reasonably familiar with the properties of all of the utilities in the state and are thus able to take into consideration any abnormal circumstances which might affect the office check, such as inadequate maintenance and correspondingly low per cent condition.

"We have," he said, "set up about a dozen different types of office checks which may be applied, depending upon the circumstances, to determine the existence of a rate base adequate to support the increases sought.

"For example, if there has been a recent rate base established, it is a simple matter to bring the then found undepreciated value down to date by adding net additions since the date of the previous determination, with or without price indexing, to account for changes in price levels in the intervening period. There are several possible variations of this general procedure. To this undepreciated value is then applied a minimum per cent condition based on general knowledge of the property which the commission staff has, supplemented by accounting information as to maintenance expenditures. To the resulting depreciated value there is added working capital computed by our standard formula."

In the absence of a previously estbalished rate base, Mr. Knaub stated the commission takes the book cost of the property which has been verified by routine accounting examinations as of the end of some year, such as 1945, or prior.

"We subtract all of the retirements made since that date from this earlier year-end property balance," he said. "We price trend the remainder down to date and add the subsequent gross additions with or without price indexing. This yields a minimum undepreciated value of the property. The computations from this point to ascertain the minimum rate base are the same as in the first example cited.

"By the use of the aforesaid methods we can determine within practical limits, the reasonableness of the rate base which the company submitted with its application and also the minimum value for rate base purposes recommended by the engineers. . . . If this minimum value for rate base purposes is sufficient to support the rates which the company is requesting it is necessary to make a definitive and time consuming determination of present reproduction cost. Since the adoption of these procedures by the commission we have cleared the commission's docket of pending secretary's reports. The commission is currently sitting continuously in hearings and is rapidly clearing the docket of pending cases."

Mr. Knaub summarized the respective responsibilities in the job of enabling regulation to keep pace with changing economic condition as follows:

(1) The regulatory laws must be sound.

(2) The regulatory lag must be reduced to a minimum and appropriate consideration given to forecast conditions during the period of effectiveness of the new rates.

(3) The utility companies must recognize and meet their own responsibilities.

"Replacement cost means original cost adjusted to reflect changes in purchasing power of money."

Depreciation Calculated on Replacement Cost vs. Depreciation on Historical Cost

JOHN PEOPLES, partner of Peat, Marwick, Mitchell & Co., New York City, emphasized at the beginning of his discussion that the term "replacement cost" has a different meaning for different people.

"To me," he said, "as an acceptable basis for computing depreciation, it means original cost adjusted to reflect changes in the purchasing power of money."

Admitting the wide variety of opinion on "this controversial subject," Mr. Peoples stated that many accountants hold the view that original costs provide the only true factual basis for the accounts—facts established by actual expenditure as distinct from estimates or valuations of replacements.

"They suggest," he said, "that to base depreciation

upon anything else but a known factor introduces into the accounts that element of uncertainty which accountants are not justified in adopting. They submit that accounts based on historical or original costs, and following conventional practices are well established and well understood by the various sections of the community. Any alteration in practice would, it is said, confuse the minds of those using the accounts and would raise issues interpretation and generally disturb all comparison with previous periods.

"There is much to be said for this point of view, but the question is—Are the results thrown up by existing practices and conventions correct? Do the accounts prepared in such a way indicate a real profit? Do they show any loss of capital, by usage or wastage of fixed assets in earning the profits, has been made good during the period?

"It is submitted the answer to these questions is clearly 'No'. There seems little doubt that existing accountancy conventions do not give an accurate measurement of profit in present circumstances."

Emphasizing that industry has now reached a new price level, far in excess of that previously accepted as normal and one from which there appears to be little likelihood of decline, Mr. Peoples noted that "events appear to have caught up with the accounting profession and demand that existing practices shall be varied to meet present conditions— varied in so far as workable procedures can be formulated to meet the situation."

"Obviously," he said, "some convention or acknowledged practice is required to meet the case of expenditure incurred in one period and having an effective and useful life over several future periods—a convention unnecessary if accounts were drawn up once-for-all covering the whole existence of the enterprise, because all expenditures would be finalized and completed within that given period. It is because short-term reports are required for all sorts of practical purposes that in many businesses it is quite impossible to relate all expenditure exclusively to the operating income of the period in which incurred. Thus it becomes essential to establish a convention or practice for dealing with these suspended items."

Mr. Peoples stated that so long as the price level remains on a stable basis over the effective life of the suspended expenditure, the use of the original cost gives a fair measurement of the charge to revenue.

"On the other hand," he said, "when the suspended expenditure is carried into periods of a different price level, the question of correct treatment of this expenditure or original cost arises. If, as is claimed, the measure of charge is the cost of renewal at current values, an altogether higher cost would, at present, be charged, against operating income, with a corresponding reduction in the operating profit."

Stressing the importance of knowing the real significance of profit and the importance of an accurate measurement of profits, Mr. Peoples emphasized that "existing accountancy practice, in so far as it relates to depreciation cost based on original costs, is giving an inaccurate measurement of profit."

"Depreciation," he said, "should be adjusted to recognize the increase that has taken place in the replacement cost of plant and equipment."

"Depreciation should be adjusted to recognize the increase that has taken place in replacement costs."

"Depreciation," he said," should be adjusted to recognize the increase that has taken place in the replacement cost of plant and equipment."

Considering how profits computed in the usual way may be adjusted to reflect the changes in the purchasing power of the dollar, Mr. Peoples explained a system known as depreciation calculated on replacement cost. Using this system, the depreciation is based on original cost adjusted through the application of index numbers, depending upon the year when the expenditure was made.

"Where the information is not already available," he said, "it will be necessary to analyze the plant account by classes of depreciable assets and year of acquisition, though it would seem sufficient to group the net acquisitions of 1939 and earlier years in one figure. Depreciation will be computed in the usual way and then adjusted on the basis of a suitable index. What is suitable is open to argument. Some economists and accountants will argue that special indices should be developed for particular businesses, not on an overall basis, but by applying say half a dozen or more specifically constructed tables depending upon the content of the varying fixed asset classifications."

Mr. Peoples stated that in his opinion a general index similar to the Bureau of Labor's consumers' price index, or its wholesale price index, or some other index prepared for the purpose, is more suitable than a construction index," since we are not attempting to convert any particular unit into dollars but only to reflect changes in the general price level so that dollars of income and expense will be roughly of the same size."

Pointing out that despite criticsm index numbers have been accepted in the determination of wage rates and the computation of inventories for tax purposes, Mr. Peoples asked, "Can it be argued that they are too much in the realm of estimates?"

"I hope you will agree," he said, "that depreciation computed on the basis of index numbers results in a figure of net income which is far closer to reality than the figure of profit arrived at under our current accounting conventions."

Mr. Peoples stated that where plant is a substantial part of the assets the figure of income computed under present accounting concepts does not represent earnings which can be distributed as dividends even where there is no intention to expand.

"To put it conversely," he said, "if the so-called profits are to be distributed, must the company shrink in its ability to produce or else be forced to increase its capital? If this is the end result, should accounting concepts be modified and are we all willing to do something about it? It is not a sufficient answer that when things get worse it will be time enough, or that change should be postponed until accounting techniques are perfect."—THE END.

Traffic Conference Reviews Today's Problems

GEORGE W. ROSE, Peninsular Telephone Co., Tampa, Fla., chairman of the USITA Traffic Committee presided at the Traffic Conference on October 13. The meeting, held in the South Ballroom of the Conrad Hilton Hotel, Chicago, during the recent USITA convention established a new high for attendance and helpful discussions.

In presenting the report of the Traffic Committee, Mr. Rose described a new toll operating practice which has reduced holding time on toll circuits and cut down on the work being handled at inward and through positions.

"These new instructions," he said, "reduce materially circuit holding and the leaving of call orders on built up calls subject to NC conditions and eliminate holding on circuits in cases where the called line is busy—except in cases of calls of emergency nature or calls in connection with civil defense."

Mr. Rose stated that studies made by one company to determine the savings on this operating change show that under the new practices speeds of service improved from 2.7 to 2.3 minutes per call. "In other words," he said, "calls were completed 24 seconds faster than under the old methods."

Mr. Rose pointed out that a considerable amount of advertising is being directed toward long distance users in order to educate them to place calls by number.

"Statistics by one large Bell company," he said, "show that operator time on calls placed by number is approximately 10 units (157 seconds) under that of calls placed

THE RECENT emphasis on higher rates for business telephones is probably a growing recognition of the telephone's true value to a business.

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No other dial switchboard offers so many practical advantages as the Leich Dial System. No other has been so rapidly and enthusiastically accepted by the Independent Telephone Industry.

Before you buy any dial switchboard, be sure to see a Leich Dial System in operation. We'll be delighted to tell you where the one nearest you is located.

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by address name. This means that calls placed by number go up nearly one third faster than other calls with the resultant saving in circuit, position and operator time. . . ."

Mr. Rose reported that the Bell System is working on long range plans which call for a large percentage of customer dialed toll calls (if economical) and the operator handling of person to person, collect, coin box and service calls at centralized area points (depending upon outside plant facilities).

"This plan," he stated, "involves the use of CAMA (Centralized Automatic Message Accounting) equipment and is designed to reduce switchboard requirements and operating costs."

Central Office Supervision

MISS CECILIA M. BURKE, traffic methods supervisor of the General Telephone Co. of Illinois, Springfield, told the Traffic Conference that good supervisors can be made by training, study and practice.

Discussing three phases of traffic supervision—planning, performance and people—Miss Burke stated that a plan or program can be successful only if it is made effective at all levels down the line" so that everyone believes it can be done and puts forth the effort necessary for the success of the plan."

"No program is any good if it remains in your head," she said. "Put it on paper so it faces you every day. Let every supervisory person involved in its application have a copy. We mimeograph ours and are very generous with them. Don't be discouraged if you don't accomplish what you set out to do. What can't be accomplished today, this week, or this month, can be carried over into the next. The ultimate objective of any long range program is to increase the efficiency of the overall traffic job. . . ."

Miss Burke emphasized that it is traffic management's job to give the chief operator the training, help and understanding necessary to help her fulfill her job to the best of her capabilities.

"Whether or not the exchange manager is the first supervisory level above that of the chief operator," she said, "he has a definite responsibility toward the chief operator and the traffic department and they to him. The manager is the traffic department's press agent—their public relations man. He cannot fully represent them unless he is informed on what they are doing. . . ."

In her concluding remarks Miss Burke listed the following essentials of a program aimed at the development of good employee morale: (1) Always be friendly; (2) make your employees feel that their work is appreciated; (3) remember that the most important person in the world to any individual is himself; (4) consider each employee as an individual and deal with each as an individual; (5) foster office and company pride in your employees.

"It pays to take time for the little things when you are dealing with people," she said. "The appreciation they feel and the happiness they get from a pat on the back or a word of commendation gives them that feeling of belonging—of being a part of the company. . . ."

Personnel and Service Protection In National Defense

C. A. ARMSTRONG, defense activities engineer of the American Telephone & Telegraph Co., New York City, told the Traffic Conference that since defense activities, in general, have a major impact on the telephone industry, military, civil defense and other government authorities very properly look to the industry to provide the essential communications needed in connection with the approach of enemy planes, spreading the warning of an attack, carrying out defensive action and civil defense measures during the attack, and mobilizing forces and directing damage control and rescue operations following an attack.

Discussing the protection problem, Mr. Armstrong stated "it is necessary that we distinguish among five aspects—

"(1) Protection of personnel who leave their regular places of duty and go to designated shelter locations;

"(2) Adequate provision between the Red Alert and the All Clear for service needs of the military and civil defense agencies whose operations during this period will be of great importance to the community whether an actual attack occurs or not;

"(3) Maintenance of continuity of service to the highly essential lines even though the serving central office should be destroyed or suffer major damage;

"(4) Adoption of practical steps to minimize damage to central office equipment if bombs are detonated in the neighborhood of the telephone building, and

"(5) Preparation of plans for the restoration of general service following an attack."

"In Hiroshima," he said, "Step-by-step equipment in a reinforced concrete building about 3300 from ground zero was damaged but was far from inoperative.

"Nuclear radiation has no effect on equipment and it is relatively easy to shield against the effects of thermal radiation by the use of flame-proofed window shades. Of course shades will be blown away as soon as the air blast reaches the building but the heat effects will be entirely over by that time.

"The air blast effects are the ones that will undoubtedly cause the most damage. Data on probable behavior of brick curtain walls in steel framed buildings and of wire glass in windows are not conclusive, but preliminary study indicates that damage due to flying glass may be reduced by covering the windows on the inside with some type of heavy chain link mesh. It may be useful to provide extra bracing of storage batteries, switchboards and equipment frames but additional data are needed before a definite conclusion can be reached. The fact that telephone buildings generally are designed to carry heavier floor loading than most other buildings will greatly increase their chances of survival."

Mr. Armstrong reminded the conference that "probably the most difficult aspect of this question of protection of continuity of essential telephone service is that of maintaining a realistic and balanced frame of mind in regard to what needs to be done, when it needs to be done, and where it needs to be done."

"One must carefully weigh the results to be expected from a particular measure against its cost as well as against the hazard involved, and avoid being carried away on the one hand by any influence of hysteria and, on the other hand, by a cynical attitude that nothing is worth doing. . . ."

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Commercial Conference Studies Rate Problem

RAY J. RIORDAN, USITA Commercial Committee Chairman and secretary of the Wisconsin State Telephone Association, presided at the Commercial Conference which was held October 13. Meeting in the Lower Tower Room of Chicago's Conrad Hilton Hotel, Commercial representatives of Independent telephone companies heard speakers Fred E. Norris, president of the General Telephone Co. of Michigan, Muskegon; T. A. Saunders of the Union Telephone Co., Owosso, Mich.; L. R. Stang, of the Illinois Bell Telephone Co., Chicago; W. J. Curtin of Telephone Answering Service, Madison, Wis.; Hon. John C. Doerfer, chairman of the Public Service Commission of Wisconsin, and Mr. Riordan.

Following greetings from the USITA by E. M. Blakeslee, vice president of the National Association and president of Associated Telephone & Telegraph Co., Ltd., Santa Monica, Calif., Mr. Riordan started the conference with his presentation of the Commercial Committee Report.

He reported that in these times of turbulent economic conditions rates continue to merit priority among Commercial duties. "Selling the rate case," he said, "and selling it well can smooth the path for the company and aid regulatory bodies in moving proceedings along at a faster pace than would be possible in the face of energetic but usually ill-informed opposition."

Mr. Riordan emphasized that the public's resentment

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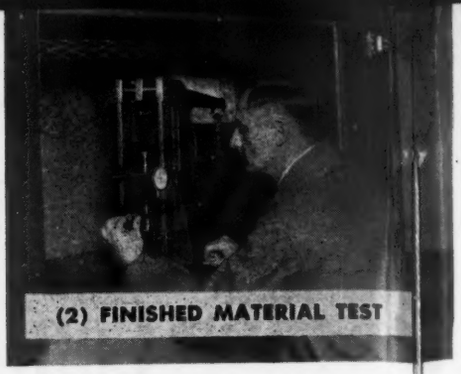
Convention Photos

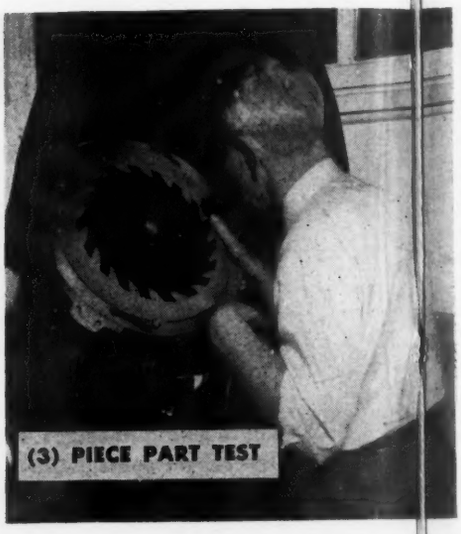
Photos in the opposite column were taken by the* TE&M *Camera during the* USITA *Convention. The November 1 issue of* FORTNIGHTLY TELEPHONE ENGINEER *will feature many additional convention photos.

Quality Cont

(1) RAW MATERIAL TEST



(2) FINISHED MATERIAL TEST



(3) PIECE PART TEST

(4) ASSEMBLED PART TEST

(5) FINISHED PRODUCT TEST

ntrol—another sound reason for buying from Automatic

If we could use only *one* word to tell you why it pays to buy from us,
that word would be *"Quality."*
For customers' records prove
that the quality we build into our products
gives you the utmost in performance and dependability!

This quality is no haphazard matter with us.
We keep it uniform by making constant "Quality Control" tests
for which we set rigid standards—even develop special testing devices!
In the pictures at the left, for instance:

(1) Analysis of iron determines its suitability for magnetic cores —a "must" in dependable relay operation.

(2) Cold deformation check on phenolic fiber guarantees long life for Strowger banks.

(3) Piece-part gauging guards accuracy of Type 51 Dials.

(4) Receiver capsule check assures fidelity of reception.

(5) Final inspection of completed toll ticketing train makes sure of flawless performance in the field.

So it is with all our products;
from raw materials to final inspection,
Quality Control safeguards your investment!

Keep our Quality Control in mind when *you* order equipment
—it's another sound reason for buying from Automatic!

AUTOMATIC ELECTRIC

Originators and Developers of the Strowger Step-by-Step "Director" for Register-Sender-Translator Operation . . . Machine Switching Automatic Dial Systems
Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

Distributors in U. S. and Possessions: Automatic Electric Sales Corporation
Export Distributors: International Automatic Electric Corporation
1033 West Van Buren Street, Chicago 7, U. S. A.

toward rate increases is often "the result of our own inability to be convincing." He stated that many telephone people, through experience in the last depression era, look upon the service they sell as a luxury, feeling that the first disturbance in the existing national prosperity will bring wholesale demand for removal of stations.

"It's apologetic and outmoded thinking," he declared. "If customers are demanding the service—and they are—they'll pay for it. The demand for telephones does not stem from curiosity or lethargy—it comes about because the telephone is a necessity. . . . Your Commercial Committee endorses the theory that the telephone is here to stay—that it is an intrinsic segment of America's manner of life today and that the industry should maintain that theme as part and parcel of rate revision publicity."

Extended Area Service

DEALING WITH the inter-company settlement phase of extended service, Mr. Norris stated—"the inter-company settlement phase has become an important matter with many companies and it promises to become of growing importance in the days ahead."

He pointed out that as more people have extended service, more will want it. "It seems to feed on itself," he said. "It started in the metropolitan areas but it is moving outstate. The demand for it is arising from customers in small exchanges for service to other nearby small and medium size exchanges removed from the metropolitan areas. The demand for extended service to the metropolitan areas also, of course, continues."

Mr. Norris explained that extended service is of the character of local exchange service. The usual toll settlement does not apply where such extended service is furnished by two companies. This leads to these questions:

(1) Of the facilities (central office and trunk) needed for extended service, what part should each company provide?

(2) What payment, if any, should be made by one party to the other?

(3) If any payment should be made—one company to the other—why should it be made?

"These are questions on which your sub-committee has been working for many months," he said. "We have proceeded upon the basis that this question of inter-company settlements primarily was one between ourselves and the Bell System. . . . We have come to agreement as to the factors and considerations as to when—the conditions under which—and the arrangements for providing extended service. It is with regret, however, that I must tell you that there has *not* been a complete meeting of minds as to a formula or pattern which might be recommended to you for use in negotiating the inter-company settlement phase of the problem with your connecting Bell company.

"Because many of you are finding it necessary to work with another company in solving your extended service problem and, further, because you—as well as some of the Bell companies— have been awaiting the outcome of negotiations between our Association (USITA) and the Bell System—there has been some confusion as to how you should plan for the future. It seemed reasonable to your sub-committee, therefore, that it suspend negotiations with the Bell System. While we naturally regret the need of doing this, we believe under the circumstances that to do so is in your best interest and in the best interest of the public you serve. Our action in this respect means that you must negotiate your extended service inter-company settlements with your connecting Bell company without the benefit of a pattern or a guide developed at the nation level."

Pointing up the area of disagreement between the sub-committee and the Bell System, Mr. Norris stated there are these two divergent views: THE BELL SYSTEM VIEW —The additional cost of providing extended service should be borne by each company in proportion to the benefits derived; THE SUB-COMMITTEE VIEW—If the relative usage between two exchanges is equal—or approximately so—each exchange should assume its own switching cost and one-half of the cost of the inter-exchange facilities.

"The Bell System view," Mr. Norris said, "as originally expressed, assumed that the benefits or value of service factor should apply to exchange switching equipment, inter-office trunks and inter-exchange circuits used for extended service. This subsequently was modified to provide that the benefits or value of service factors should apply only to the exchange switching equipment and inter-office trunk facilities needed for extended service. Their (Bell System) view contemplates that as to the inter-exchange facilities—that is, the cable or wires connecting the Bell and Independent companies together for extended service—each company would provide at its own cost one-half of such facilities."

Mr. Norris pointed out that such a 50-50 split is the plan of settlement which the National Association sub-committee has consistently believed proper. He explained, however, that such a 50-50 split should, as well, properly apply to the exchange switching equipment and inter-office trunks, if any, needed for extended service.

"The Bell System view," he said, "holds that when two exchanges are of equal size, the benefits derived from the extended area service arrangement will be equal and offsetting. When one exchange is smaller than the other, the Bell view further assumes that the benefits derived from the extended service arrangements are greater for the smaller exchange than for the larger exchange. They have told us that where the exchanges are substantially unequal in size that a payment should be made from the small exchange to the large exchange in order to preserve the value of service concept underlying their exchange rates.

"In order to determine the level of payment to be made by the small exchange to the large exchange for switching equipment and inter-office trunks in the large exchange, Bell has proposed this formula:—If the large exchange has 90 per cent of the main telephones in the total extended area and the small exchange 10 percent, the small exchange would bear 90 per cent less 10 per cent or 80 percent of the annual charges applicable to the switching equipment and inter-office trunks needed for extended service in the large exchange.

"Your sub-committee disagrees with this philosophy. We believe that the nebulous factor of '*benefits*' and '*value of service*' have no place in a settlement between two telephone companies. We believe that a settlement can

be made on a reasonable and sound basis, exclusive of these factors, which will not jeopardize the '*value of service*' concept of exchange rate making. We find support for this view from our investigation of the questions with industry representatives outside of our committee. We have in fact, found none outside of the Bell System who believes that these factors must be evaluated—and a payment made for them—in order to preserve the principles underlying exchange rate making. . . ."

Mr. Norris commented that the sub-committee's point of view is that after extended service is established the volume of traffic flowing from the small exchange to the large is approximately equal to the flow of traffic from the large to the small. "To the extent this is true," he said, "it is apparent that the small exchange must provide facilities of all kinds to carry as many calls for the large exchange as vice versa. Also to the extent that the traffic volumes in both directions are approximately equal, it is evident that dividing a fixed amount of traffic by the smaller number of stations in the small exchange will result in a higher extended service calling rate per station than when the same volume of traffic is divided by the larger number of stations in the larger exchange.

"Because of this we agree with the Bell System that there might be more benefit to the *average* station in the small exchange than to the *average* station in the large exchange. By the same token, however, the small exchange must provide more investment to carry this traffic—per average station—than is the case of the large exchange. Your sub-committee believes that the cost of facilities provided by *each* company for *use* in handling the other fellow's orgininating extended service traffic forms the proper approach to the answer to the settlements problem. . . .

"Your sub-committee feels that since the extended service traffic volume in both directions is approximately equal, studies to determine these two factors are, for all practical purposes, unnecessary. This could be given effect by the following formula:—Each company would provide at its own cost the switching and inter-office trunk facilities needed to carry extended service traffic in its own exchanges and each company would provide one-half of the cost of inter-exchange facilities."

Mr. Norris stated that the Bell System now agrees with the USITA sub-committee as to the method of settling the inter-exchange facilities but the two groups are still far apart as to the method of settling the switching costs. "While we have felt that further negotiations to resolve our differences would not be productive at the present time," he said, "we have left the door open to resume negotiations at some future time. It is entirely possible that after both Bell and we have gained more experience in rendering extended service between two communities, we will find some way to resolve our differences. . . ."

Rates and The Small Company

IN A DISCUSSION aimed directly at the rate problem of small operating companies, Mr. Saunders emphasized that the public is willing to pay increased rates for the type of service it wants.

"To be successful," he said, "any business must take in more money than it pays out. If rates are too low no company can continue operations for long without reducing its pay-out. Any company operating with rates rates established in the 1930's or early '40's has discovered that increased expenses has forced it to cut. These cuts usually hit two spots: (1) a reduction in the amount the owner can take out of the business in wages and return on his investment, and (2) reduced maintenance (or replacement) of plant."

Mr. Saunders pointed out that the basis for rates is: (1) To meet all operating expenses including maintenance; (2) meet depreciation charges (based on capital investment), and (3) provide a satisfactory return on investment.

"The owner of the company," he said, "is entitled adequate rates that will provide payment for all services performed, including management. If the wife or members of the family aid in the operations of the company—take notes if necessary—but charge for services performed if the company cannot pay in cash. . . ."

Telephone Answering Devices

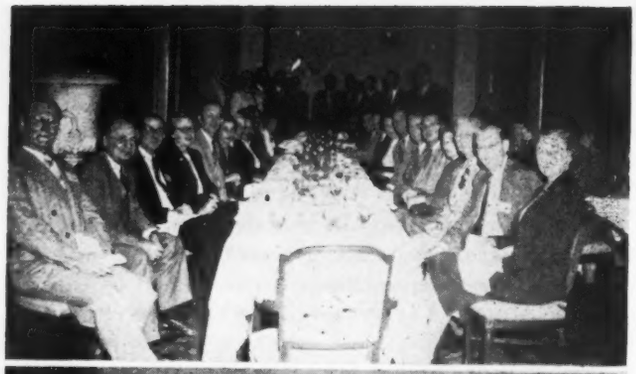
MR. STANG defined automatic answering and record-service as a "service providing for the mechanical answering of a subscriber's telephone when the subscriber is absent from the premises, the transmission to the calling party of a pre-recorded message and the automatic recording of an incoming message from the calling party."

"This service," he said, "is offered by the Bell System companies through the use of equipment which is directly connected to the telephone line on the subscriber premises and which, is, of course, integrated and compatible with the entire communication system. The service which is being offered provides two-way communication, as it is understood in everyday telephone service, with the marked difference that an automatic answering machine, which is used in addition to the telephone set, is substituted for the telephone set at the called end of the connection."

Mr. Stang commented that the experience to date indicates that the customers who have taken the service from the Illinois Bell Telephone Co. are satisfied that it provides them with a desirable adjunct to their telephone service. The Illinois Bell now has about 150 subscribers to the service. These customers include doctors, dentists, realtors, television and electrical appliance servicing concerns, fuel suppliers, contractors, sales and manufacturers' agents, laundries and a number of miscellaneous types of business.

"The automatic answering and recording equipment," he said, "including, where required, one answering and one recording disc, is furnished for an installaiton charge of $15.00 and a monthly rate of $12.50. A $5.00 move charge applies for moving the equipment from one location to another location on the same premises. Ten additional answering discs will be furnished for a charge of fifty cents and 10 additional recording discs will be furnished for a charge of $1.25."

The address presented by Hon. John C. Doerfer, chairman of the Wisconsin Public Service Commission will be presented in a future issue. Mr. Doerfer's discussion of "That 'Drag' Between Petition and Order" was one of the highlights of the Commercial Conference.—THE END.



Plant Committee Presents Outstanding Conference

W. M. DRIGGS, Sherman, Texas, chairman of the USITA Plant Committee, presided at the Plant Conference October 13 and presented an outstanding plant program that continued the Committee's established aim of devoting its annual conferences to current problems and new developments.

In presenting the Plant Committee report to the conference, Mr. Driggs stated the Committee had prepared a program for the 1952 Conference that would cover subjects that are of general interest.

"The exhibits in our headquarters in Room 521," he said, "will again include such items as new materials, new ideas and tools and particularly, the working exhibits which have again been asembled by hard-working Dan Seitz and his Sub-Committee. . . .

Mr. Driggs explained that the present Committee, as appointed by USITA President L. W. Hill, consists of nine men from New York to Texas and all of these men took an active part in the year's activities and in formulating the program for the 1952 Conference.

"In addition to these men," he said, "Geo. C. Richert,

Convention Photos

Photos in the opposite column were taken by the* TE&M *Camera during the* USITA *Convention. The November 1 issue of* FORTNIGHTLY TELEPHONE ENGINEER *will feature many additional convention photos.

Washington, acts as secretary of the Committee, and as such, gets in on his share of the work. In spite of heavy company work loads occasioned by conversions, storms, large plant programs, critical material shortages, etc., these men have willingly given their time to the activities of the Plant Committee. I greatly appreciate all of this and in addition, I wish to express my appreciation to the companies who have so willingly made all of this possible. Such co-operation eases the pain of being chairman of such a group and for all of this, I am deeply grateful.

"The type of program presented the last two years has met with such favorable acceptance that the Plant Committee recommends that this type of a program be continued. To assist in this program Sub-Committee personnel was again selected from all sizes of companies with all sections of the country represented. We are greatly indebted to these men and to the companies involved for the assistance which has been given."

Mr. Driggs stated that a meeting of the Plant Committee was held in Chicago in April at which time the Sub-Committee directors were appointed and the sixty-two Sub-Committee members were selected from the recommendations of the company managers or executives.

"These Sub-Committees," he said, "serve during the entire year and they stand ready and willing to serve you in solving your plant problems. All inquiries received throughout the year are forwarded to the Sub-Committee Director dealing with the phase of plant operations involved. All Plant Committee members are also requested to furnish comments and the results are then forwarded to the inquiring company. An indication of the widespread interest being shown is borne out by the inquiries received by the Washington office of the USITA, the Plant Committee and the trade publications. Since the last October Convention, inquiries have been received from practically all of the forty-eight states and, England, France, Venezuela, Mexico, Brazil, Australia, British Columbia, Hawaii and Canada. No detailed record has been kept of these inquiries but the total is well over two hundred and fifty. Considerable interest has been shown, particularly with regard to the subjects of Joint Agreements, Cable Techniques and New Developments. Negotiations are under way in several instances between Independent Telephone Companies and Power Companies where the sample agreements furnished by your Association are being used as guides."

Mr. Driggs said the Plant Committee's program for the balance of the year includes the following: (1) Review the Association's booklet "The Economic Aspects of Small Office Dial Conversions"; (2) Consider the preparation of a small pamphlet drawing attention to the desirability of concealing inside wire in new building construction; (3) Compile engineering data on Toll and Trunk networks and Exchange Transmission with respect to the rapidly expanding exchange areas; and (4) Accumulate the latest data on brush control methods for aid to the member companies.

Latest Developments & Methods In Brush Eradication

J. A. MCKINZIE, general plant superintendent of the Lincoln (Neb.) Telephone & Telegraph Co. and director of the USITA Sub-Committee on Wire Plant reported to the Plant Conference that selective herbicides proved to be effective in destroying unwanted woody plants without seriously affecting grasses and other herbaceous plants, and application costs have been quite low. The result is that practically every company in the telephone, telegraph, and power fields with serious right-of-way brush clearance problems, have adopted chemical right-of-way treatment as a standard practice.

"The herbicide considered most satisfactory from the standpoint of effectiveness and low cost," he said, "is a combination of equal parts of 2, 4-D and 2, 4, 5-T low volatile esters in a water or oil carrier. The low volatile ester form has less tendency to cause spray drift than other forms, and it is also noncorrosive and nonpoisonous in spraying concentrations.

"There are several methods of applying the herbicide, as follows: (1) Foliage spraying, using water as carrier; (2) basal bark (dormant season or year round) spraying using oil as carrier; (3) basal bark spraying with oil and water emulsion as carrier, and, (4) cut-stump spraying with oil as carrier."

Mr. McKinzie stated that experience of various companies with the foregoing methods indicates that basal bark and cut-stump spraying using oil carrier are the most effective and economical for the following reasons:

(1) Basal bark and stump spraying can be conducted on a year round basis, thus making full use of trained personnel. Foliage spraying, on the other hand, must be confined to the growing season, from the time the trees are in full leaf until a couple of weeks before the frost.

(2) Basal bark spraying, as the name indicates, requires only spraying of the lower or basal portion of trees and brush stems. Only about 12 inches of this portion need be coated with the spray mixture down to the ground line. Foliage spraying requires complete coverage of the tree and brush foliage for effective killing.

(3) Because of the small coverage, basal spraying is very economical of the spray material, even though oil has to be used in order to penetrate the bark and carry the chemicals to the cambium layer for translocation into the root system. Oil is naturally more expensive than water and a rather heavy concentration of chemicals has to be used; nevertheless, only a very small quantity of this herbicide is needed for effective killing. Regular oil drums or a small tank is adequate for carrying the quantity of spray mixture required for the job.

(4) With foliage spraying, large volumes of water with lower concentrations of chemicals must be applied to fully cover the tree and brush foliage. It is thus necessary to use a large tank for transporting the spray mixture and frequent stops must be made at farms and wayside ponds to replenish the tank. High pressure equipment must be employed to throw the liquid to a height sufficient to cover tall trees and to spray over a large area of brush. Much spray material is thus expended and it is difficult to control spray drift due to the misty nature of the high power sprays. This spray drift is a serious source of damage to nearby sensitive crops, fruit trees, and ornamental plants.

(5) In basal bark spraying, simple low pressure spray equipment is adequate for applying the herbicide as all that is needed is to produce a coarse-breaking wet spray that does not create excessive spray drift or nauseating fumes to sicken the operator. The investment in such equipment can be kept quite low, whereas the high pres-

sure equipment with large tank would cost possibly five to ten times as much.

(6) Undesirable tree or brush species can be eradicated without harming nearby desirable species, where necessary spraying can be done in the dormant season to avoid extremely sensitive crops growing adjacent to the right-of-way.

(7) Basal spraying is more practical because it can be done 12 months out of the year, while foliage spraying must be applied only during the growing season. The foliage spraying method is affected and retarded during damp, wet weather, just following or preceding a rain or windy days.

"When spraying right-of-way first started in some localities," Mr. McKinzie said, "local spray contractors were hired to handle this work. They used foliage spraying equipment, and, at first, seemed to get good results. As time went on, and additional crews were employed, results varied and in many cases the work was not altogether satisfactory. Other ways of treating plant growths were then considered. Basal bark spraying with simple equipment and low-volume, high-concentration spray appeared to be the solution to this problem. Regular plant forces can be trained in the proper procedure to do the spraying in a more practical manner. Results have since confirmed this judgment."

Experience to date, according to Mr. McKinzie, indicates that the herbicide for basal bark spraying should consist of two pounds each of 2, 4-D and 2, 4, 5-T esters in one gallon of glycol mixed with No. 2 fuel oil at the rate of one gallon of the formula to 24 gallons of oil.

The following types of spray equipment are recommended: (1) 150-gallon tank and reciprocating pump driven by a gasoline engine.This assembly is mounted on a trailer; (2) 100-gallon tank and hydro-jet pump powered by a gasoline engine. This assembly is transported in a truck or a trailer, and, (3) 55-gallon drum with intake and agitator by-pass hose to centrifugal type pump driven by a gasoline engine. This assembly is transported on a truck or a trailer.

Accessory items are 50 feet of oil resistant hose, and a long handled spray boom with disc type or adjustable cone type nozzle. The latter type is provided with a swivel head which is a great convenience in directing the spray around the plant stems.

"Of the three types of power spray equipment listed," he said, "the 100-gallon tank with hydro-jet pump has been found to give the best service. The smaller unit with 55-gallon drum also is satisfactory provided that the pump is properly designed to operate at the speed of the gasoline engine.

"Experience with the spray equipment indicates that it is desirable to equip trailer mounted equipment with rubber shock absorbers to minimize damage to the tank from road vibration; also that the trailers should have the same tread width to track properly with the truck. Narrow orchard type spray trailers are not designed for long hauls over rough roadways. The filler plug on the tank should have neoprene or cork gaskets as ordinary rubber gaskets are damaged by the oil in the spray mixture."

In concluding his paper, Mr. McKinzie stated that "from the results that have been obtained thus far, we can state, without undue optimism, that basal bark spraying is a highly successful method of obtaining right-of way brush clearance.

"We expect to greatly reduce our brush clearance costs," he said, "especially after the first two years, since there will be only occasional hand trimming of trees in locations where permission cannot be obtained for removal or chemical eradication of the trees. As for occasional resprouting from dormant seeds or unaffected root systems, we propose to have our combinationmen spray unwanted sprouts or seedlings as they are found in the course of the daily work. In time, we may have to respray some of our right-of-way, where regrowth has gotten out of hand.

"The matter of having to respray some years later brings up one point that was not covered in the discussion. This is the matter of spraying low growths. Where the low growths are thick, we have used the foliage method with good results and on a more economical basis, rather than trying to basal spray each little sprig. We strongly recommend that growths such as Sumac and Wild Plum be left alone, unless the property owner insists on their removal. These low growing plants very rarely cause line interference and, in addition, they will prevent other species of trees and brush from getting a foothold on the right-of-way. These low growths also provide cover for birds and small animals, thus becoming an important factor in wild life conservation."

USITA President Edwin M. Blakeslee, president of Associated Tel. & Tel. Co., Ltd., Santa Monica, Calif.

Functions Of The Communications Equipment Division (CED)

E. C. ROYS, vice president of the General Telephone Co. of Michigan, Muskegon, and former director

of the Communications Equipment Division (CED) of the National Production Authority (NPA) told the Plant Conference the scope of operations of the CED is probably somewhat broader than is generally realized. It encompasses not only domestic telephone companies, but also the international communication operators who utilize cable and radio transmission, as well as manufacturers of communications equipment. Both the Bell and the Independent companies are included. However, the general fields of radio and television, including broadcasters, are not within the scope of CED.

"Probably," he said, "you are more familiar with that function of CED which relates to the allotment of controlled materials than any of its other functions. As you know, the administration of the controlled materials plan involves having manufacturers and operators file applications for controlled materials (copper, steel and aluminum) with the CED. It is the function of CED to determine from these applications the requirements of the industry as a whole for these materials. These requirements, together with sufficient supporting data to indicate the essentiality of the users, are presented to the DPA. It is the function of the DPA to make estimates of the total supply of controlled materials and to relate the supply to the requirements. By this process DPA comes up with a preliminary recommendation for the allotment of the available supply to the various claimants in accordance with their relative essentiality. These recommendations are then reviewed by a committee composed of representatives of the several claimant agencies and the programs and requirements are adjusted to the supply. Determination can then be made as to the distribution among the claimants. . . .

"Having received its allotment as the claimant agency for the communications industry, CED then proceeds to parcel out allotments among the various operators and manufacturers."

Mr. Roys stated that early this year it became evident that the status of the CED as claimant agency for the Communication Industry was not well recognized.

"The division," he said, "was not represented on the committee handling the program adjustments and this proved detrimental. The matter was pressed actively. As a result the division did obtain recognition as a claimant agency. We considered this most essential to the adequate presentation of the claims of our Industry for its essential share of the three controlled materials."

According to Mr. Roys administering the controlled materials plan is one of the principle functions of the division but there are other important functions. One of these is an expediting service for communications equipment manufacturers. The division is frequently called on to assist in obtaining such items of equipment as machine tools. Since the military services have spoken for a large proportion of the machine tool output, the expediting process often requires obtaining clearance for delivery from these services. In addition a number of appeals requesting additional supplies of critical non-controlled metals, or relief from restrictions on usage of such critical metals, are being processed. As an example, solders with a high tin content are needed in the manufacture of such items as wave-guides used in micro-wave radio equipment. Where the use of these solders is prohibited by certain orders, the users can obtain relief by an appeal directed to the CED. There are, of course, many similar actions which require processing.

"A program looking toward conserving scarce metals is a major activity of the division," Mr. Roys stated. "The interchange of information among the various manufacturers and research laboratories is encouraged to insure general adoption of the latest developments in this field. Some examples of conservation measures which have been widely adopted are: (1) Substitution of nickel in stainless steel products such as lashing wire; (2) reduction of the nickel content in such piece parts as relay springs and teletypewriter parts; (3) substitution of brass parts for nickel—silver parts in telephone switching equipment; (4) substitution of steel for aluminum in equipment housings; (5) substitution of aluminum for copper in electrical wire and cable, and, (6) substitution of silicon for nickel in magnetic alloys."

Discussing the government's program for stimulating industrial expansion through tax amortization Mr. Roys pointed out that the program is applicable to the expansion programs of the Communication Industry.

"For example," he said, "this summer an expansion goal was set up by the division for the Western Union Telegraph Co. and now has been approved by DPA. That company was thereby granted the right to accelerate amortization of $20 million of a $50 million five-year expansion program. Unquestionably this will be of great assistance to Western Union in financing the additional plant proposed.

"The program can also be applied to telephone operating companies. So far relatively few applications have been received by the division from telephone operators. However, at least one such application involving the installation of a complete central office in a housing development adjacent to an army camp had been approved. Further, several expansion projects of a small operating telephone company were in process of being analyzed and I believe will be recommended to DPA for approval."

Mr. Roys stated that such cases are analyzed by a formula which takes into account such factors as: (1) The extent to which the project (directly or indirectly) supports a military installation or defense plant; (2) the difficulty being encountered in financing—especially when the operating company is small in size; (3) the possibility that the plant installed will have a shorter than normal life, and, (4) the likelihood that part of all of the plant installed may become useless in the event of deactivation of the installation or plant which it supported.

These and other pertinent factors are given weight in determining the portion of the total investment to be amortized rather than to determine whether or not tax amortization is to be allowed. Practically any type of telephone plant construction essential to the community being served may be granted some proportion of tax amortization.

The following information on the accounting practice for tax amortization as followed by Power utilities was obtained from the Defense Electric Power Administration:

(1) The accelerated depreciation rates are not applied to plant for regular accounting purposes with the State Commissions or Federal Power Commission. They are only used for filing returns with Internal Revenue.

(2) In the case of regular accounting, the tax savings are credited to a reserve account. The funds accumulated are then used for plant expansion.

(3) At the end of the amortization period, the reserve account will be charged to pay the higher taxes which would prevail (assuming same tax rate and income levels) because no further depreciation can be claimed for tax purposes.

(4) Tax amortization could have an effect on rates only when the percentage of the plant covered comes relatively large. However, since the tax savings amount to an interest free loan, it will affect the cost of money to the utility and thereby could be a cause for reduction in the rate of return considered equitable by the Commission.

Looking at the future of the Communications Equipment Division and NPA, Mr. Roys said, "by the end of the year I would expect NPA to be cut by approximately one-half. As the balance between supply and demand for controlled materials improves—and it is improving—I would expect to see the following actions taken in the fairly near future:

"(1) The self-authorization limits which apply to the smaller firms will be materially increased, thus reducing the number of applications filed with CED; (2) Procedures within CED will be simplified; the applications of smaller companies will be approved more or less automatically and in full, and, (3) Full or partial decontrol will finally follow."

Mr. Roys concluded his address with a tribute to the men from the telephone industry who have served as directors and deputy directors of the division since its organization.

"These men," he said, "left their affairs and their homes to devote their talents to the betterment of their industry and their government. Each was on loan to the Government for a six-month tour, and each in his own way contributed greatly to the difficult task of administering the work of the division. Without their service our industry would most certainly not have received its due recognition as an essential support to the defense program. Those who served as Director are Luther W. Hill, president of the Carolina Telephone & Telegraph Co., and the Home Telephone & Telegraph Co. of Virginia; Robert E. Williams, an official of the Automatic Electric Co., and William M. Day, vice president of the Michigan Bell Telephone Co. My six-month tour of duty ended on August 30.

"Industry representatives who have served as deputy director are: Warren H. Chase, executive vice president of the Ohio Bell Telephone Co., and J. R. Peterson, assistant vice president of the Southwestern Bell Telephone Co. Presently in office are Charles W. Potter, vice president and general manager of the Indiana Bell Telephone Co. as director and Ralph F. Lucier, president of the United Telephone Co., Inc., Warsaw, Indiana, as deputy director.

Report Of Radio Service Committee

RADIO SERVICE Committee Chairman C. H. McLean, Chicago, presented the Radio Service Committee Report to the Plant Conference. He stated the most important radio question faced by the Independent telephone industry, and continually receiving the attention of the Radio Service Committee, is the lack of frequency assignments in suitable bands that will permit this medium to be successfully utilized in rendering important public service.

"The USITA," he said, "has been consistently petitioning the FCC for additional assignments but so far has met with little success."

In view of this deadlock, Mr. McLean reviewed the radio situation as it applies to the Independent telephone industry and made recommendations for the future.

"There would seem to be only one course of action that can be followed," he said, "and that is for the Independent telephone industry to become more active in radio in the limited available spectrum, to preserve a position for the future. In other words, besides the question of holding the present channels, it should be kept in mind that there is always the possibility that future equipment developments may make it possible to use the available frequency spectrum in a more efficient manner that will produce more channels, thus enhancing the value of the assignments.

"It is suggested therefore, that serious consideration be given to the use of all frequencies currently assigned exclusively for common carrier operation, particularly in the region from 40 to 500 megacycles. Further, it is indicated that the point is rapidly approaching where independents should interest themselves in frequencies above 500 megacycles, into the so-called 'micro-wave' regions, and if this is not done we will again find ourselves, at some future date, in the same position we now face in the bands below 500 megacycles. In other words, by the time Independents realize that these frequencies are valuable in providing essential public service, they will no longer be available, having been assigned to others."

Translating the foregoing into practical recommendations, Mr. McLean said the following is indicated:

(1) Inasmuch as telephone common carriers have exclusive assignments in the 30-44 megacycle band and in the 152-162 megacycle band, more extensive use should be made of these channels. Altogether, six exclusive channels are available in each of these bands for use of telephone companies for mobile radio telephone service on a primary basis, and point-to-point and rural service on a secondary basis. These channels are currently used to full advantage in the populated areas, particularly by Bell companies, but very little use is made of these assignments in the less-populated areas, served for the most part by Independent telephone companies.

(2) Independents should carefully consider the use of the available mobile channels, for point-to-point and rural service where there is not the demand for mobile, particularly if the rules applying to the use of these assignments are made more favorable. In this connection, the committee has been informed that the FCC is now revising the rules covering all domestic public radio land services and the committee is currently working with the association officers to petition the FCC to broaden the rules in a manner that will provide flexibility in the sparsely-settled areas as to the use of available channels for mobile, single and multi-circuit point-to-point, including relay and rural service.

For example, generally speaking there is a limited

demand for mobile service in Independent areas and it would seem desirable to employ available channels to provide service for point-to-point and rural telephone, rather than tie up an entire channel for one or two vehicles. Service to a limited number of vehicles, including the telephone company's own service cars, might well be added as an additional station on a rural channel if the rules, when published, will permit. Also, it is anticipated that the new rules will permit point-to-point radio relay for channels in the 152-162 megacycle band. which was not contemplated originally.

Other bands that can be used by common carriers for single or multi-circuit point-to-point service are 72-76 megacycles, which is expected to be made available shortly on a non-interfering basis with television channels 8 and 9, and the band 458-460 megacycles which is currently available for fixed domestic radio service, with limitations that are not paramount in areas not densely populated.

(3) Finally, it is urged that Independents give serious consideration to radio as a medium for new projects under consideration involving the extension of rural service to subscribers in isolated locations, the providing of additional trunks or short-haul toll, including toll extensions that require extensive rebuilding due to the inadequacey of present open wire or cable routes, emergency projects, and last but not least, parallel radio toll facilities for open wire lines in sleet areas.

Convention Photos

Photos in the opposite column were taken by the* TE&M *Camera during the* USITA *Convention. The November 1 issue of* FORTNIGHTLY TELEPHONE ENGINEER *will feature many additional convention photos.

"Contact your suppliers," he said, "and tell them your problem, for they are all working on equipment that will meet service demands on a radio basis, for the most efficient use of the radio spectrum and to provide both service and economic advantages over wire plant. Remember, when you do this you have your 'foot in the door,' so to speak, and in a position to rapidly move up into the micro-wave spectrum when it is found expedient to do so, to meet essential public service demand. . . ."

Safety Always . . .

DISCUSSING "Safety Always" at the afternoon session of the Plant Conference, Mr. Driggs stated there are several types of safety programs in effect in the telephone industry.

"Any one of them is good," he said, "particularly in view of the fact that the desired results are being obtained. Probably one of the most successful programs being used in the industry is that type in which most of the investigation work and reporting is done by a Safety Committee comprised of employees only.

"A brief resume of the organization of this type is as follows:

(1) A Safety Committee of three to five members is selected by the employees within the area. The size of this committee is determined by the number of employees

(*Please turn to page* 70)

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within the exchange, district or division involved.

(2) The committee is selected either annually or semi-annually. About one-half of the committee is retained at each election, thereby permitting each employee to eventually serve on the Committee.

(3) The committee elects a chairman and secretary who direct the meetings and record the minutes, respectively.

(4) All accidents, either lost time or no lost time, will be reported to the committee for investigation and recommendations.

(5) Upon completion of the investigation a report is forwarded to the manager or supervisor in the area, with additional copies being forwarded to other members of the organization, depending upon Company policy.

(6) Unsafe practices observed by employees are reported to the Committee and recommendations made by the Committee.

(7) Tool and vehicle inspections are made periodically by the Committee.

(8) In numerous cases the committee has requested that a written report be submitted by the employee having an accident. This report is then placed in the files of the Safety Committee for review at its monthly meeting.

(9) The company furnishes each Safety Committee a report of all accidents within the company and any of those within the industry which might be of interest for review by members of the Committee.

"Inquiries I have made of several companies using this method," he said, "show that the results obtained indicate that although the severity of the accidents have decreased considerably, the number of minor accidents in some cases has increased. The opinion of the Committee members and management of these is that the increases in the number of minor accidents probably is due not only to the fact that the employees are more safety minded, but also because all types of accidents, regardless of their nature, are reported. Previously only those accidents involving loss of time had been brought to the attention of management. Further review of committee reports shows that a number of improvements in work operations resulted in suggestions by employees. These not only tended towards safer work operations, but in many cases reduced the work operations, thereby producing a saving for the company, as a result of greater efficiency and economy of operation. Many of these recommendations are usually in line with management's thinking; however the results are much more gratifying when the recommendations are made by the employees rather than by management. . . ."

COMING CONVENTIONS

North Carolina Independent Telephone Association. Carolina Hotel, Pinehurst. Oct. 23 and 24.

Georgia Telephone Association, Henry Grady Hotel, Atlanta, Oct. 27 and 28.

South Carolina Independent Telephone Association. Clemson House, Clemson, Oct. 30 and 31.

Virginia Independent Telephone Association, Roanoke Hotel, Roanoke, Nov. 6 and 7.

Alabama-Mississippi Independent Telephone Association, Jefferson Davis Hotel, Montgomery, Ala., Nov. 10 and 11.

Florida Telephone Association, Orange Court Hotel, Orlando, Nov. 13 and 14.

South Dakota Telephone Association, Cataract Hotel, Sioux Falls, Nov. 13 and 14.

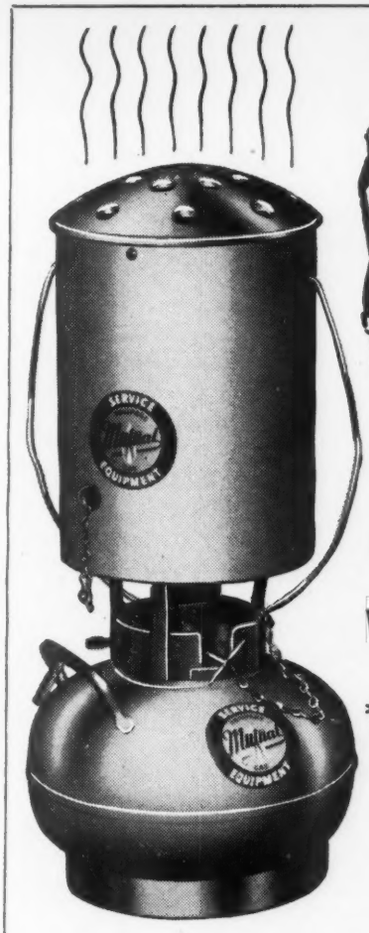
Oklahoma Telephone Association, Tulsa Hotel, Tulsa, Nov. 20 and 21.

Expansion of The Telephone System in Puerto Rico

J. D. DOMINGUEZ, vice president and general manager of the Porto Rico Telephone Co., told the Plant Conference the Porto Rico Telephone Co. operates a local and long distance telephone system throughout Puerto Rico with the exception of a small area in the center of the Island where the Government owns and operates a small telephone system. The company today serves some 39,000 stations and its long distance network comprises over 13,200 circuit kilometers.

In the last 10 years the number of

(*Please turn to page* 72)



KEEP OUTSIDE CREWS WARM with PORTABLE *Propane HEAT

Combat cold winter weather with Mutual's Portable Propane Heater. Now more than ever you can insure greater comfort and working efficiency for your outside crews this winter with a Mutual Propane Heater that puts out 11,000 B.T.U.'s.

Light weight—portable, safe and easy to use . . . the ideal Heater for Telephone Company ground and aerial tents. Burns clean, no smoke or gas fumes, may be used in confined areas. No pumping or priming required . . . just one valve to turn for comforting even heat. Heavy steel bottom prevents tipping over.

Heating unit is interchangeable with Mutual's No. 2 and No. 3 furnace, or you can attach it to Mutual's No. 6, No. 11 or No. 21 cylinders.

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BENCH TYPE

May be used with ordinary Propane cylinder with P.O.L. fitting on hose.

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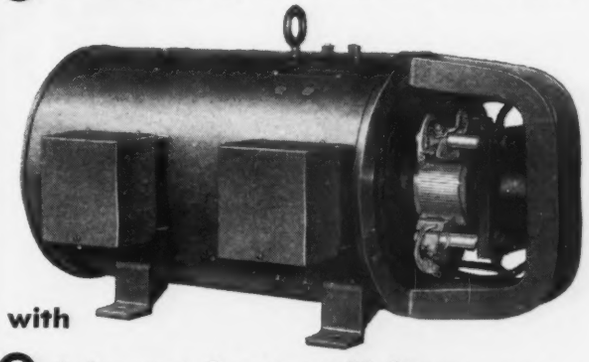
FOR *Time-Proved* BATTERY-CHARGING PERFORMANCE

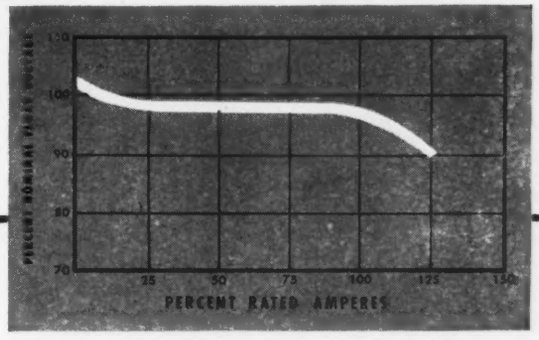
Specify

1 E. P. Diverter-Pole Motor-Generators



with

2 Inherent Constant Voltage . . .



Constant voltage delivered by E.P. Diverter-Pole Motor-Generators serves three important functions:

A—DECREASES RELAY MAINTENANCE. Keeping the voltage from rising too high helps to prevent "slapping" of the contacts that may result in misalignment, pitting and burning, and preserves the sensitive adjustment of the relays. High-coil current . . . with accompanying insulation breakdown, shorting and burning-out . . . is avoided.

B—INCREASES BATTERY LIFE. Operating records of many exchanges show that the E.P. Diverter-Pole Battery Charger increases battery life from six to fourteen years. High battery temperature, excessive gassing, and undue breaking down of the active cell material are prevented to assure the longest possible battery life.

C—IMPROVES VOICE TRANSMISSION. To assure satisfactory voice transmission, the Battery Charger must maintain the output voltage of the battery as close as possible to a constant value. Transmitters may become noisy if they are subjected to an excessively high voltage, and may have to be replaced because of permanent damage.

Write for Bulletin 209

EP

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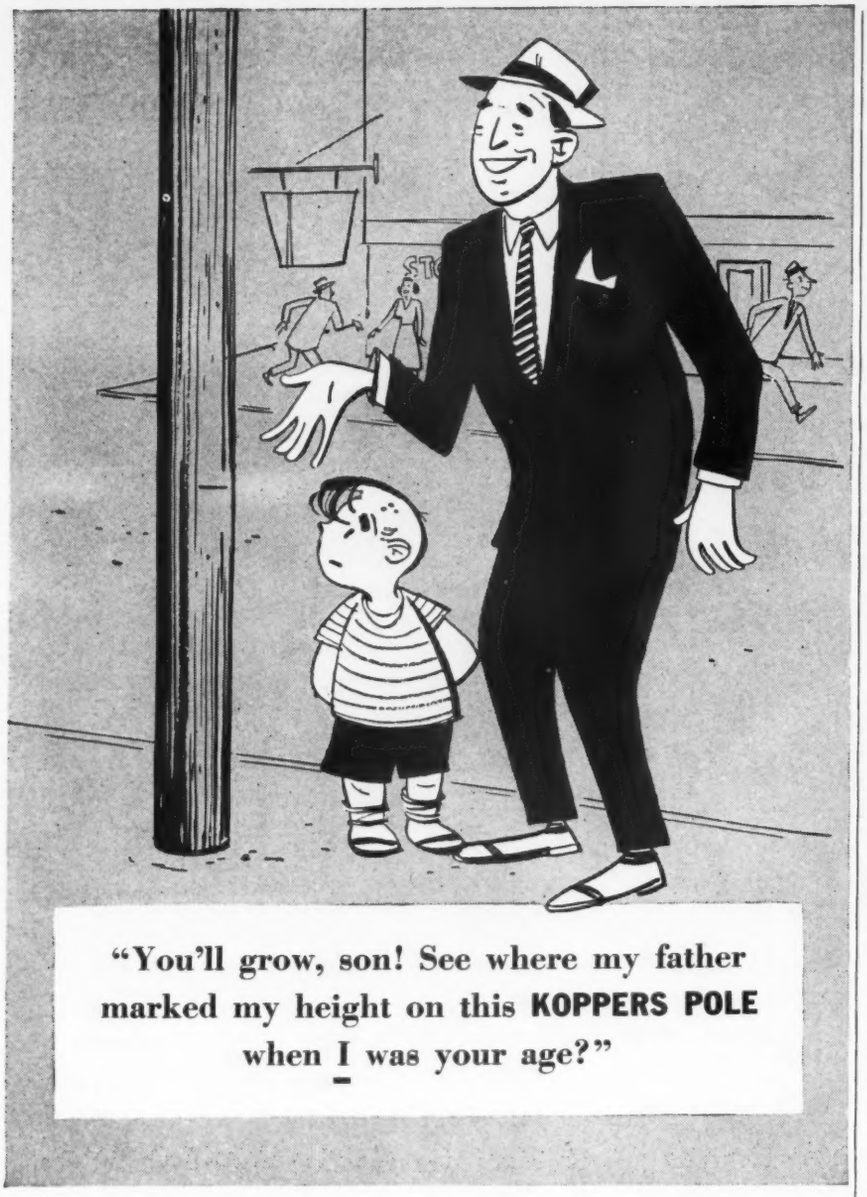

● Even though many Koppers Poles become landmarks, we don't recommend that they be used as measuring sticks. After all, these durable poles more than "earn their keep" in conventional ways.

Koppers Poles give utility companies long, trouble-free service—the kind of pole service that makes line operation better, easier and more economical.

Specify Koppers Full-Length Pressure-Creosoted Poles. You'll save money on maintenance *and* on replacement costs.

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KOPPERS PRESSURE-CREOSOTED WOOD

company stations has increased 89%. During the same period the number of completed long distance calls has increased 185%. Evidence of the ever growing inter-relation between Puerto Rico and the Continental United States can be seen from the fact that the number of overseas calls during the same decade increased 552%.

Puerto Rico has a greater telephone development per 100 inhabitants than many other countries. Similarly, San Juan, with 8.8 telephones per 100 population has a larger development than many other important cities in the World.

"Many of the problems with which our telephone company is confronted," he said," are very similar to the problems with which your companies have to cope. Perhaps, the most important one of these is the need for adequate earnings to permit us to raise the large amounts of money required for the expansion and development of the system. Our expenses over the last several years have continued to increase more rapidly than our revenues and this in turn has meant that our net earnings to average invested capital have decreased."

Mr. Dominguez said the demand for telephone service in Puerto Rico is so great that the company at the present moment has about 13,000 pending applications for service.

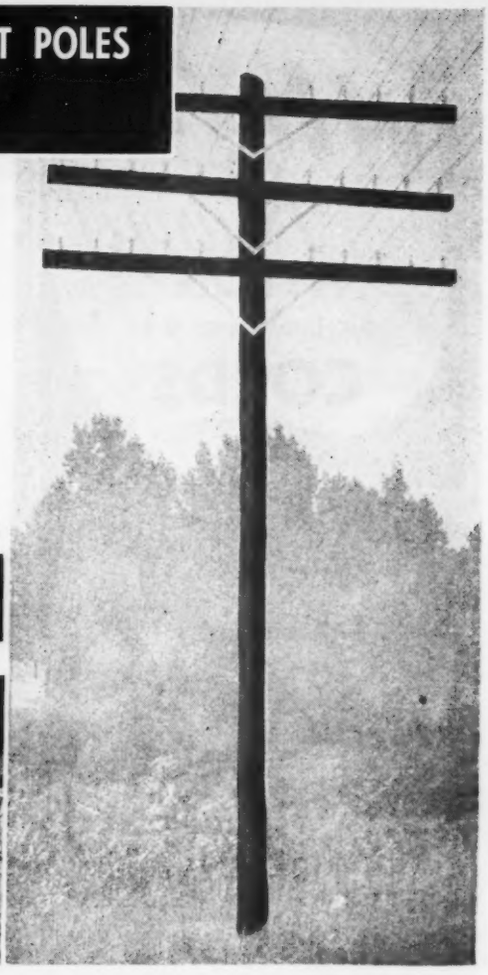
"As a matter of fact," he said, "the more telephones we install the more applications for service we receive. We have installed about 26,000 telephones since 1945, which saw the end of World War II, for a net increase, since then, of some 14,500 stations or 66%. We expect to gain an additional 19,000 stations over the next five years.

"There are two facts about the telephone company's development which have been evident in the last several years and which are important to all of us operating men as well as to the public we serve. These facts are: (1) That we are faced with the greatest demand for telephone service in our whole history, and, (2) That this situation prevails in a period of continually increasing costs. . . . No matter how these facts are viewed they simply mean that it costs more to provide the necessary plant and it costs more to operate the service."

Emphasizing that the only remedy

(*Please turn to page* 74)

CONTINUAL RESEARCH MAKES TAYLOR-COLQUITT POLES INCREASINGLY BETTER



Below are shown two pilot treating cylinders in the Taylor-Colquitt research laboratory. One is six while the other is 26 feet long.

Manned by graduate technologists, these cylinders in conjunction with a large amount of special laboratory apparatus, are used not only to aid in the control of Taylor-Colquitt production operations but also to develop new and better wood preserving techniques.

Continual research with this equipment means increasingly better products —increasingly greater values for the ever growing list of telephone companies that specify Taylor-Colquitt poles.

Taylor-Colquitt poles are distributed to independent telephone companies exclusively by Automatic Electric Sales Corporation, 1033 West Van Buren Street, Chicago 7, Illinois.

TAYLOR-COLQUITT CO.
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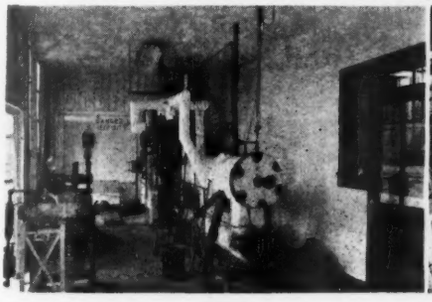
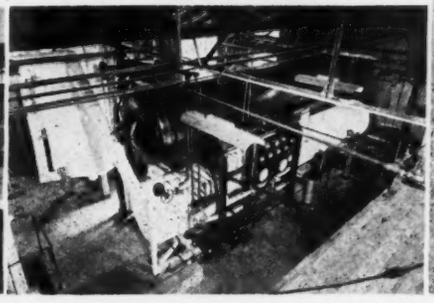
PLANTS AT SPARTANBURG, SOUTH CAROLINA AND WILMINGTON, NORTH CAROLINA





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Preferred because they are easy to clean and keep clean. The smooth texture of closely woven nylon does not irritate the hands. The days work is done with less effort . . . less fatigue.

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Correct leg length, trim and true tracer colors makes them easy to install. The precision of their manufacture to exacting specifications simplifies installation. Better workmanship follows.

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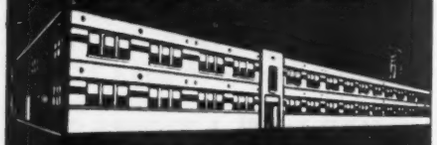
Business executives are interested in overall economy in operating costs. These durable, superior cords give long range economy becabse they out-wear other cords and provide better service for a longer period of time.

When switchboard or operators head-set cords are needed, specify RUNZEL "VN" SERIES NYLON CORDS. They are available for every type and make of instrument.



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to such a situation lies in rates which will be adequate, from year to year, to attract the new capital to finance essential plant expansions and to cover increased wages and other operating costs, Mr. Dominguez said. "To finance the program which we envision over the next five years, we will require some $15,000,000 and this money will have to come principally from investors willing to invest in our business. This money will be required, not only to provide for the conversions to automatic service but for the purpose of expanding considerably our long distance network, to provide for the anticipated growth, for the extension of telephone service to areas not now served and in a measure to provide for necessary margins in our telephone plant. At the present time our plant is working to capacity. . . ."

Small Office Dial Conversion

PLANT Committee member G. M. Miller, of the Rochester (N.Y.) Telephone Corp., reported to the plant conference that the booklet "The Economic Aspects of Small Dial Conversion," published by the Plant Committee in Nov. 1945, has been revised. Upon approval of the USITA board of directors it will go to the printers and announcement will be made in USITA Member Letters as soon as copies are available.

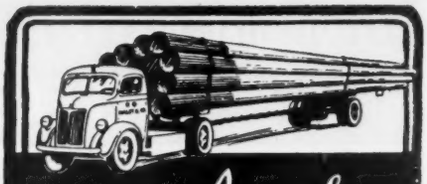
A few of the important changes in the new booklet are:

(a) Change of the title from "The Economic Aspects of Small Office Dial Conversions" to "Small Office Dial Conversion".

(b) Mention is made of the importance of discussing, with the regulatory body, of either city or state, the necessity of rate adjustment for increased revenue, if necessary, sufficient to make the conversion. This job should be taken care of before any commitments for material are made.

(c) The public—the subscribers—should be kept informed of the progress of the work. This can be done in a number of ways—newspapers, talks before clubs and church groups, schools, etc. These talks can also be used to educate the subscribers in the use of the dial.

(d) Regarding the section on buildings, Mr. Miller stated a book could be written on this subject, especially as the building requirements varies



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Keeping lines free from trees is a profitable investment. It is a further investment to be sure the tools you use protect your men from accident.

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are endorsed and used by the largest companies, because they are highly efficient, strong, light and easy to handle. The No. 1-W Tree Trimmer, clips limbs up to 1¼" with ease and has the patented Compound Lever head with pulley which gives a cutting power of 9 to 1. Handles are 6 to 16 feet in length with extra length easily attached. You can't go wrong on any Bartlett Tool. Ask for prices and full information today.

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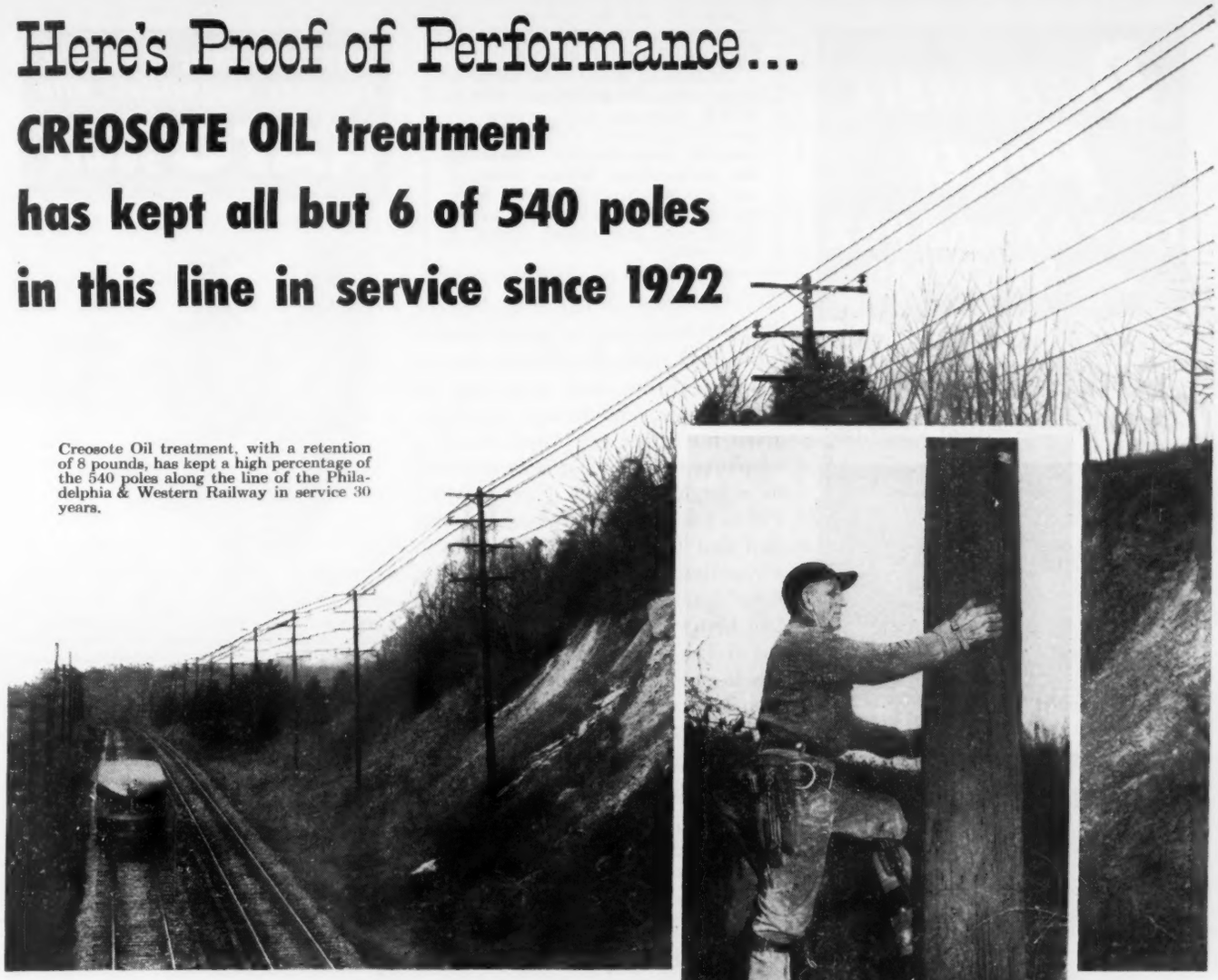
Here's Proof of Performance...

CREOSOTE OIL treatment has kept all but 6 of 540 poles in this line in service since 1922



Creosote Oil treatment, with a retention of 8 pounds, has kept a high percentage of the 540 poles along the line of the Philadelphia & Western Railway in service 30 years.

Lineman Henry Daub of the Philadelphia Electric Company prepares to climb a pole on the line he helped to erect in 1922.

IN 1922, the Philadelphia Electric Company erected this 540-pole line along the tracks of the Philadelphia and Western Railway between Norristown and Llanerch, Pa. The Southern pine poles were given an 8-pound pressure treatment with Creosote Oil.

In 1940, the 376 poles on the Main Line—between Llanerch and Matsons Ford Road—were inspected. Two poles were removed due to decay, and three were moved for relocation. The next year, one pole was found decayed on the Schuylkill Division—between Matsons Ford Road and Norristown—and six were relocated.

The third inspection, in 1951, led to removal of three more poles and the marking of 15 more for future replacement. Relocation affected one other pole. Future inspections are scheduled every three years, and most of the poles are expected to last at least another decade.

Let records like these be your best guide when you choose a wood preservative. They are real *proof of performance*. They are the main reason why the wood preserving industry is using Creosote Oil at the rate of more than 200 million gallons a year.

Creosote Oil contains not one but many compounds whose toxicity and permanence ward off attack by such wood destroyers as termites, fungi, dry rot and marine borers.

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DEPENDABLE POWER
For PAX and PBX SYSTEMS
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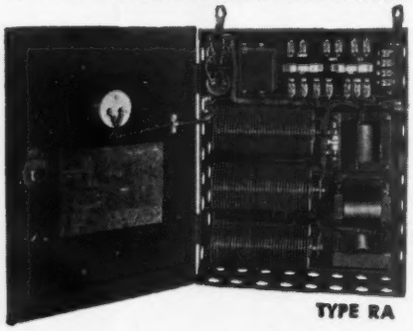
CONSTANT VOLTAGE BATTERY ELIMINATORS



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The most economical telephone power supply is an Electrox Battery Eliminator

Powered from your regular 110-volt lighting system.

Electrox Eliminators provide smooth, hum-free D.C. of required voltage — eliminating batteries.

Automatic operation. Output voltage remains practically constant, regardless of current drain. When desired, provision can be supplied to switch to emergency power source automatically.

Battery chargers and battery eliminators available in sizes and capacities to meet every power requirement.

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*T.M. Reg.

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Convention Photos

Additional convention pictures from the* TELEPHONE ENGINEER *Camera will appear in succeeding issues. This issue was printed immediately following the convention, before some of our pictures were received from the engraver, to enable us to bring you the report while it was news.

as to its location. The discussion in the revised booklet is along general lines; it is stressed, however, that in the engineering and arranging of equipment, careful thought should be given for future expansion. Many a telephone company has been required to enlarge a central office building due to the post-war growth, and also find that this demand for service is continuing. This has happened in areas where the growth, previously, had been very slow.

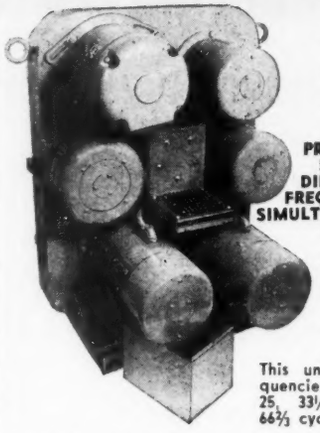
(e) The section on "Outside Plant" has been enlarged, to include discussion on the type of plant between the dial office and the control center, mentioning the importance of it being storm-proof.

Other Plant Conference Address & Features

IN THE ABOVE paragraphs we have summarized the majority of the papers presented before the 1952 Plant Conference. The papers not reviewed are: "Cable Line and Instrument Fault Location by Bridge and Ohmmeter Method," by D. S. Seitz of the York (Pa.) Telephone & Telegraph Co., "General Data on Inductive Interference and Crosstalk," by B. C. Burden, Telephone Engineer, Lincoln, Neb., and Paul Henson of the Lincoln (Neb.) Telephone & Telegraph Co., and "New Devices and Techniques In Communication," by Ray Blain, Office of Chief Signal Officer, Washington, D. C. Each of the papers mentioned was excellent anl we suggest that interested readers obtain copies from the United States Independent Telephone Association, 411 Munsey Building, Washington 4, D. C.

Another interesting and valuable feature of the Plant Conference was presentation of a film entitled "Treat Wood Right," by W. O. Trettin of the General Telephone Company of Illinois, Springfield. This film was a natural for the Plant Conference and proved to be one of the highlights of the Monday afternoon session.— THE END.

MEET USUAL SINGLE OR MULTIPLE FREQUENCY REQUIREMENTS WITH
KATO RINGING POWER



PROVIDES 5 or 6 DIFFERENT FREQUENCIES SIMULTANEOUSLY

This unit has frequencies of 16⅔, 25, 33⅓, 50 and 66⅔ cycles.

Powered by a 3-phase synchronous speed AC motor. Many other frequencies available such as 20, 30, 42, 54, 66 cycles. Also single frequency units. Can be supplied with DC motors.

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Washington Report

(*Continued from page* 51)

principles are not necessarily a part of the equipment of some labor organizations. Taking note of inflationary conditions the C-I-O's Executive Committee some months ago adopted a resolution calling for a minimum wage of $1.25."

LIAISON WITH STATE ASSOCIATIONS:—"Your officers maintain close contact with the state telephone associations, of which there are now 35 including the one recently revived in West Virginia. Those organizations are performing a very useful service to their local membership. They are close to their individual members, especially the smaller companies which are more frequently in need of the kind of advice and help a trade organization is equipped to render.

"Of the 35 state associations, 9 maintain full time secretaries. In view of the importance of the local organizations to their members it is too bad that more of them do not provide for a full time officer. An alert, aggressive state secretary devoting his entire time to the interests of his membership would be worth many times the expense which would be involved.

"The joint opportunities of the national and state organizations for service to the common interests they represent, and for cooperation for the attainment of common goals, are many."

In his concluding remarks Mr. Bailey warned—"The moving glaciers of bureaucracy and abridgment of individual freedom are many. Some of them are large, but there are also a lot of small ones. . . . some so small that even you and I can do something about them. . . . and some so small that we heard people say that this or that cannot hurt our freedom very much. . . .that they can't have much bearing upon the fundamental character of our way of life. . . . The small things do count. There is an old Chinese proverb that a journey of a thousand miles is begun with a single step.

"In a fight for the preservation of this free enterprise system in a free America . . . . a fight in which it is the duty of everyone of us to assist, it is sometimes helpful to regard ourselves as being engaged in a mighty crusade. . . . an inspired endeavor . . . . one to save the qualities of initiative and incentive that have made ours the greatest land of opportunity of all time, produced the highest standard of living anywhere and made our country the envy of the world.

"And when a resourceful people are engaged in such an endeavor . . . . in such a crusade for the right, they are overcome and moved by zeal and a fervor and a pride and a spiritual exaltation whose offspring must surely be a victory for freedom."—THE END.

QUOTE

"The 'long arm of the tax collector' is no idle expression when the tax collector is Uncle Sam. . . . Total Federal government internal revenue collections for the fiscal year, which ended June 30, 1951, exceeded 50 billion dollars. This compared with slightly under 39 billion dollars the year before."—Lakewood (N. J.) Citizen.

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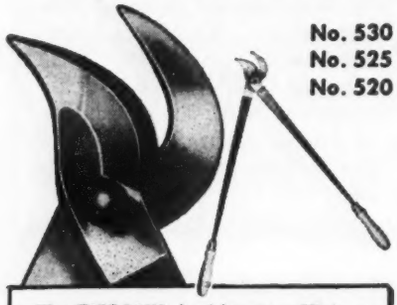

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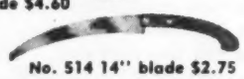

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QUOTES

"While the Federal government is aggressively carrying on a campaign for comprehensive and liberal social security, it has been undermining the foundation of the program by diluting the purchasing power of the dollar through deficit financing during eighteen of the past twenty-one years. By following unsound fiscal policies, the government is making it increasingly difficult for the American people to provide for their own security, and this in turn compels them to turn to the government for aid."—Dover (Dela.) State News.

• • •

"All of us today are suffering from too much 'taking away' and none of us like it. The next pay envelope or pay check you receive will reveal what we mean. Take a look at the sizeable amount 'taken away' from your earnings and the shrunken condition of your take home pay, and you'll join with everybody—even with the Demo politicians, the big city machine bosses, the New and Fair Dealers, the Palace Guard and the social planners in hollering loudly, 'Don't let 'em take it away!'"—Emporia (Kans.) Gazette.

"One Man's View"

(Continued from page 47)

"We seem to be approaching the point," he said, "within the next year where we can do away with these controls entirely, except on a stand-by basis to be put into operation in case of a sudden emergency.

Mr. Hill expressed his belief that telephone companies, big and little, probably came through the scarce copper, and the scarce steel period which is still with us, a lot better and a lot easier because we were able to get an agency set-up established which was familiar with what the telephone companies needed and had to have because the agency was manned by telephone men.

"Nobody dislikes controls and red tape more than I do," he said, "and I hope we will soon be through with them for good. But if we're not, and if another international crisis makes it necessary to clamp on more controls, I hope that the industry will recall the benefits of the pattern already established and stand by to serve when they are needed because, in a really critical emergency, it could pay off. At least we now have the blueprint, and I hope it stays a blueprint when the present controls taper off." THE END

USITA Traffic Conference

(Continued from page 58)

"Our Better Half . . ."

POINTING UP the importance of the Traffic Department to management, H. H. Butler, president of the Illinois Telephone Co., Bloomington, emphasized to the Traffic Conference the importance to management of the traffic half of its working force.

"Are we always sure that the traffic department is the half that runs more smoothly," he asked, "or is it the half that causes more than its share of the problems? Is it the half that carries it's end of the business and produces revenue on an economical basis, or is it the half that the rest of the business carries along? Is it the half that creates prestige and good will, or does the other half do that?

"When we talk about traffic, there is no question but what it is the 'half.' A USITA report for Class 'A' Independent telephone companies shows 3,258 chief operators, supervisors and instructors, 24,290 experienced switchboard operators, 2,088 operators in training, and 258 other switchboard employees, a total of 29,894 employees out of 61, 045. This is 49%—but if we add our traffic superintendents, our traffic engineers, we certainly can call it 50 percent.

"Our traffic half, except for the superintendents and engineers, consists of women. For our Class A companies, some ⅔ of the 61,045 total employees are women. And well this is so. Our early pioneers in the telephone industry knew what they were doing and why they were doing it, when they replaced boys with girls at central office switchboards. Women, as a rule, are neater workers than the male sex. They are faster and

more nimble fingered. Psychologically, women take orders with less resentment than male employees. Women tend to be more interested in people, while men are more concerned with ideas—another reason why women make better telephone operators than men ever could.

"The preponderance of women in our industry makes the telephone business unique among utilities—gas, water, electricity—unique among communications—mail, telegraph and cable. And the preponderance of women in the traffic department makes the traffic department unique in certain ways."

Mr. Butler stressed the fact that there should be harmony in the ideals and objectives as between traffic and general manager.

"If the general manager's finances limit equipment or service," he said, "it still is no reason for traffic not to do its very best under possibly trying conditions. On the other hand, if traffic wants changes it believes to be improvements within the framework of company policy and finances, the general manager should certainly approve."

Discussing turnover, Mr. Butler stated there are two phases to this problem. The first, that turnover predominates in the employees with the least service. In fact, the turnover with employees of less than 6 months service may equal all the rest. And secondly, an analysis of the reasons for traffic personnel leaving will show that although there are many reasons that can be classified in the justifiable column, the majority, particularly those with the lesser service, leave for "tempermental" reasons, such as leaving to accept another position. Although not stated as such, these "tempermental" reasons may really be found to lie in working conditions, primarily the lack of favorable hours.

Mr. Butler said possible corrective action for excessive turnover would include:

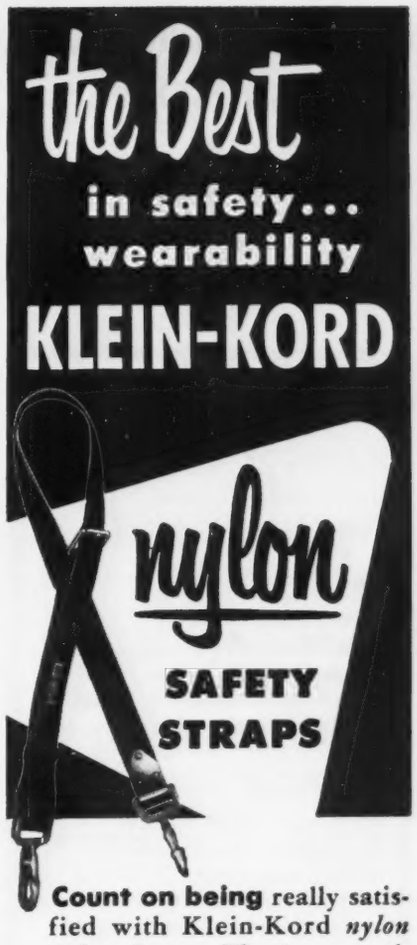
(1) Proper Selection — Great initial care in accepting new employees pays real dividends. The Bell people in our area state that they take only one out of ten applicants from responses to advertisements, and one out of three from references, such as references from fellow employees, etc. Our industry standards have to be more than just "Age 17-23 and a high school graduate."

Selection methods in small towns are relatively simple, but in larger towns where our chief operator is not personally acquainted with applicants, we have to exercise considerable care. Simple intelligence tests which measure our requirements in "nickel, dime and minute" mathematics, toll line geography, and alertness, we find are helpful, and we will not accept an applicant who makes a failing grade. We find that $3.00-$5.00 spent for a physical examination, even if rejects are only 1 in 50, pay in the long run, both as a matter of selection and as later protection to our benefit funds. Check of references is also essential, as well as a thorough discussion with the applicant of job standards, pay and hours.

(2) Proper Indoctrination — Once selected, the employee should receive initial indoctrination from the first day of her training, and it should be continued in her early job assignments. A new employee's supervisor must be both saleswoman and counselor to the new employee. Every employee "saved" means so much less expense to the Company.

(3) Proper Supervision — Although we assume we have well trained supervisory forces, these supervisory forces should recognize the cause and reasons for turnover and provide continuous job indoctrination. One of the very real values of proper supervision is the inspiration and interest in the job that supervisors and chief operators develop in our employees. Nothing is quite so important as the willingness and desire to do a good job.

(4) Good Working Conditions— Even if our hours of work can not compete with those of other businesses, we can at least provide surroundings and facilities which are attractive. Lounge rooms, air conditioning, eating facilities, magazines and employee programs all help. You probably recall a few weeks ago, the story in "LIFE" magazine of an insurance firm in Texas, which, in a highly competitive area, paid its employees $40.00 less per month but made up for it by luxurious working conditions and employee programs. We need not go to that extreme, but we do have to provide sufficient facilities to offset the disadvantages of our hours of work to draw and maintain the most satisfactory employees."—The End.



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Washington Bureau

(*Concluded from page 20*)

ward taking them from the U. S. government, the statement centered almost entirely around the comparison of the Bell System and the Post Office.

The Bell System had gross operating revenues of $3,639,000,000 in 1951, with net operating income of nearly $436,000,000 after paying out $629,500,000 in federal, state, and local taxes. It also collected $571,000,000 in excise taxes paid by telephone users, the study noted.

In contrast, the Post Office, with half a million employees, had gross operating revenue, including receipts from the Treasury, of $2,328,000,000. But it had an operating deficit of $551,000,000, made up by the taxpayers, the council added.

Discussing the advantages the Post Office has in a financial comparison of this type, the statement said "It will be argued that this large postal deficit includes outlays for franked mail and certain subsidies which should rightly be charged to other federal agencies than the Post Office.

"This is true, but on the other hand the department does not charge against its income any rent for the land it occupies, any interest on its investment in plant and equipment, nor any depreciation on its buildings."

In the study, the council also compared U. S. telephone and postal service, pointing out that while the number of telephones in the nation has virtually doubled since 1940, and that telephone equipment and service is constantly being modernized and improved, the postal system has been the target of steadily-increasing service criticism in recent years.

The survey added, "A recent confidential spot-check of postal employees revealed a receptive attitude to the idea of turning the postal service over to taxpaying private enterprise. Employees reported that morale has been greatly impaired by the hierarchic setup which has ruled the postal system in recent years. Some can show that Department officials often take as much as two and one half years to respond to employees' suggestions for improving the service—and such responses are usually negative."—THE END.

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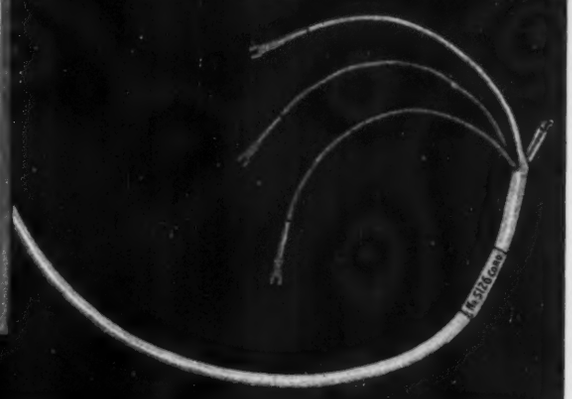

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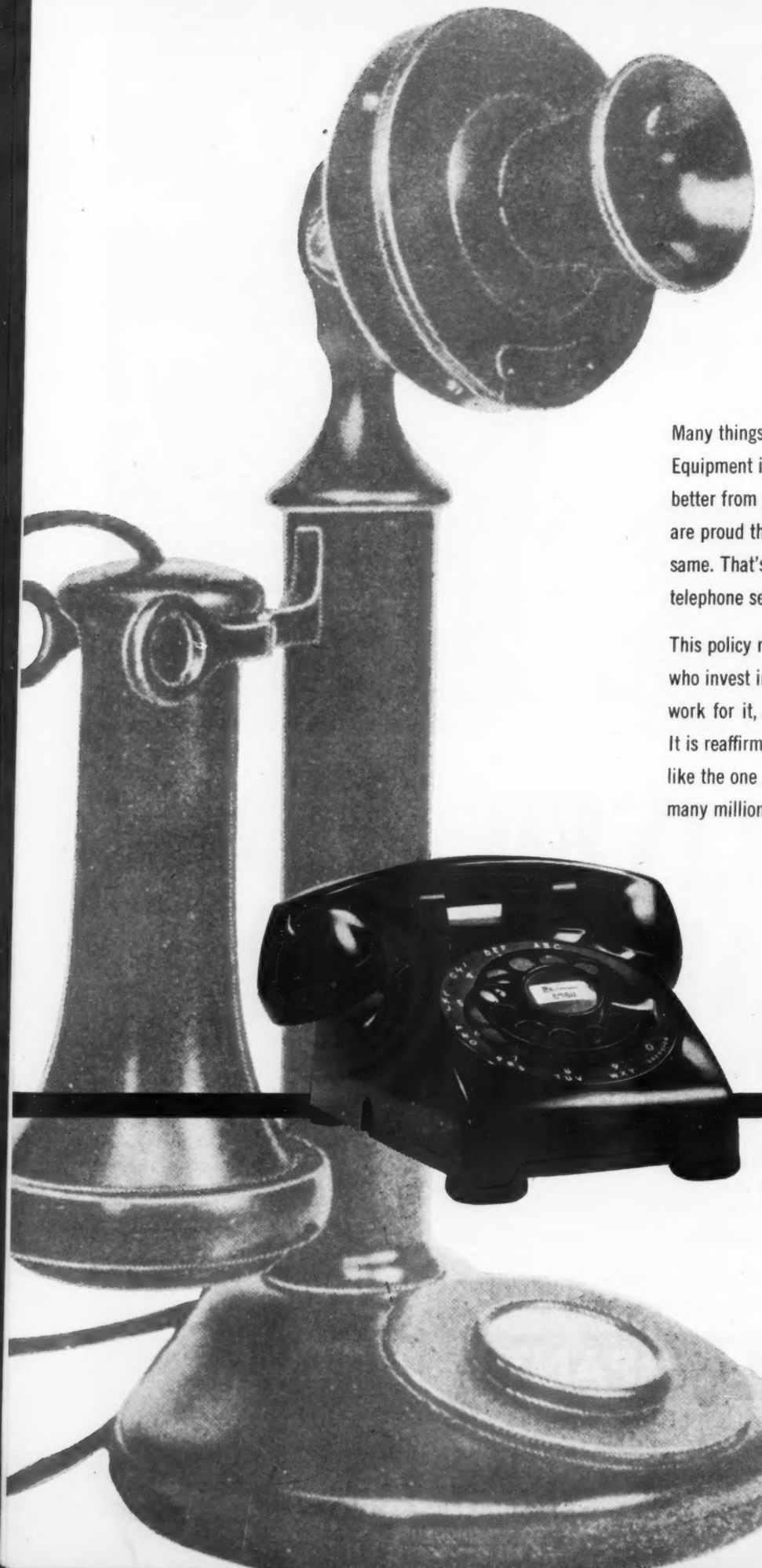


ONE THING STAYS THE SAME

Many things change in the telephone business. Equipment improves and service gets better from year to year. But telephone people are proud that one thing is always the same. That's the policy of "the best possible telephone service at the lowest cost."

This policy means fair treatment for those who invest in the business, those who work for it, and those who use the service. It is reaffirmed publicly in advertisements like the one across the page, seen by many millions in magazines for October.

"The Best Possible Telephone Service at the Lowest Cost"

Twenty-five years ago, on October 20, 1927, the Bell System put into writing, for all the world to see, the basic principles for the management of the business.

The policy tells the people what they have a right to expect from the company. At the same time, it commits everyone in the Bell System to a high standard of conduct for the business. The promise of "the best possible telephone service at the lowest cost" intensifies the effort to make that promise come true.

The never-changing policy of fair treatment for those who invest in the business, those who work for it, and those who use the service, will bring still greater progress in the years to come.

Responsibility to TELEPHONE USERS

"The fact that the responsibility for a large part of the telephone service of the country rests upon the American Telephone and Telegraph Company and its Associated Companies imposes on the management an unusual obligation to the public to see to it that the service shall at all times be adequate, dependable and satisfactory to the user.

"Obviously, the only sound policy that will meet those obligations is to continue to furnish the best possible telephone service at the lowest cost consistent with financial safety."

Responsibility to TELEPHONE SHARE OWNERS

"The fact that the ownership is so widespread and diffused *(there are now more than 1,100,000 share owners of the American Telephone and Telegraph Company)* imposes an unusual obligation on the management to see to it that the savings of these people are secure and remain so.

"Payments to share owners, limited to reasonable regular dividends, with the right to make further investments on reasonable terms as the business requires new money from time to time, are to the interest of telephone users and employees as well as share owners."

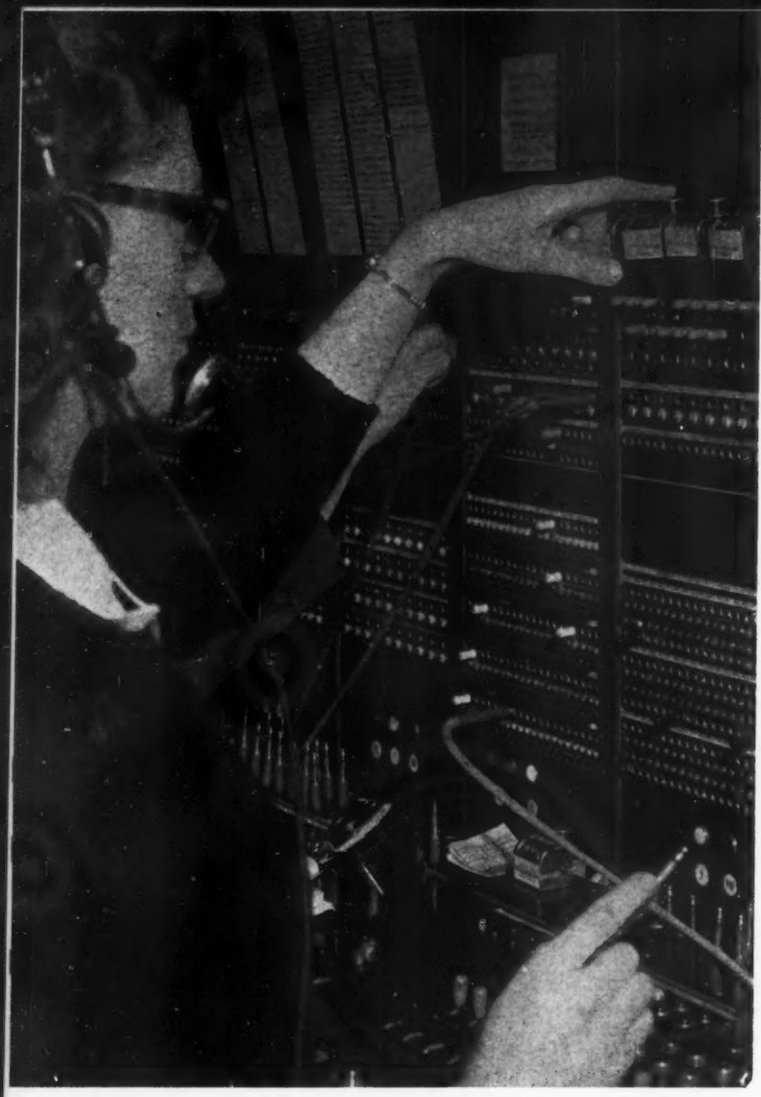
Responsibility to TELEPHONE EMPLOYEES

Many years ago, in its annual report to share owners, the company's responsibility to its employees was expressed in these words:

"While the Bell System seeks to furnish the public the best possible service at the least cost, the policy which recognizes this obligation to the public recognizes equally its responsibilities to employees.

"It is and has been the aim to pay salaries and wages in all respects adequate and just and to make sure that individual merit is discovered and recognized."

Bell Telephone System



SMALL COMPANY TALK

By BILL CORMAN

"Our telephone 'soup' is being diluted, and by any number of factors in any number of ways"

HI, NEIGHBOR! Throughout the years there have always been a few jokes kicking around based on the unexpected guest and "putting some more water in the soup". When the water was added, it didn't add any more calories or other form of nourishment to the soup —it just made it *appear* to be more so that the extra bowl could be filled. It was a practice that was not made known to the guest, on the theory—the correct theory—that it was not a particularly good thing to do.

I don't believe I can think of a better illustration of what is happening to the telephone business—our telephone soup is being diluted, and by any number of factors in any number of ways. Of all the dilutions that are taking place, I want to single out three to talk about in this article—Dilution of the per-station investment, dilution of the per-station rental revenue, and dilution of the value of the common stock share(or, if you are not incorporated—the proprietorship, which is the same thing).

The dilution of the per-station investment is a fairly well known factor in the Telephone business today; it has been talked about and written about in most of its ramified connections. You may not have thought about the process before as a "dilution" condition; nevertheless that is what it is. The average per-station investment (the average amount it cost you to put each station in your system into operation) in the average small to medium sized telephone company today, probably represents the figure for which you could have installed a telephone 12 years ago—some companies will have an older figure, of course, and some a more recent figure, but let's just assume the average is 12 years. That 1940 cost is, as you well know, much less than it costs to install a phone now. And every time you add a telephone today, you are further diluting your average cost. If the average cost of 100 stations in your plant at the first of this year was $175.00, then you had a total investment in the 100 stations of $17,500.00. If this year, you add 5 telephones at an average cost of $300.00, you now have a total investment of $19,000.00 in 105 telephones, or a new overall average now of $181.00 per station. This in turn means that where you used to have to earn a net profit of $10.50 per station per year to have a 6% return, you know must have a net of $10.86 per station.

If you are to maintain your credit standing, and maintaining your credit is about the only way you can continue over a period of time to furnish proper service to your subscribers, you must maintain your earnings, so you have to get that extra 36 cents per station from some increased revenue somewhere. This angle to the situation has been well covered many times, and most companies are aware of it, and are doing something about it. But carried a little further, it has still more meaning.

Even if the inflation spiral stopped today, and the prices of everything we telephone folks buy leveled off,

our per station investment would continue to go up with every station we add. This in turn means that, even if all other prices level off at where they are now, telephone rates will need to continue rising as long as we keep adding new telephones.

If you think that your subscribers, as represented by the commission would not stand for such a process, I won't argue with you—you may be and probably are right.

What then can we do about the situation? Well, it might be rough, but in a sound telephone company, the storm probably can be weathered. But the company that has asked for, and received, rate increases along as it needed them and is, so to speak, "caught up" on its rate structure, will be in much better shape than another company which has let its rate structure lag for one reason or another. The moral is: be sure to ask for increased rates the moment it becomes clear that they are needed. To delay is to take a serious risk that needn't be taken.

Let's jump now to another dilution that is taking place in many companies and look at that for a moment. Because business phone rates are income tax deductable items and residence phone charges are not, it has become a very widespread practice to increase business rates (when increases are necessary) more, proportionally, than residence rates. Let's take a typical small company as an example, and see where this practice leads. In most small companies, I believe it is safe to assume that the demands for business service are much more nearly filled than are the demands for residential and rural service. In other words, most small companies have probably installed service for most of the business subscribers who have asked for service, whereas they probably have not filled anything like that percentage of their demand for rural and residential telephones. Let's further assume that the company needs to expand its plant, probably cut over to dial operation, renew some of its cable, etc.; and to make its figures come out even, needs a rate increase. For simplicity in the illustration, let's put down three classifications of phones, and add up the company's station count, as follows:

	Stations No.	Present Rate	Monthly Revenue
Bus.	100	$4.00	400.00
Res.	300	$3.00	900.00
Rural	100	$2.00	200.00
Total	500		$1,500.00

The company may figure, and the commission may agree that additional monthly rental revenue of about $250 is necessary. The question now arises as to where to get that additional $250; that is, where to put the increases. If today's general trend were followed, the rates would probably end up about ts follows: Business $5.50, Residence $3.25, Rural $2.25—which would produce a total monthly rental revenue of $1,750.00. The old average per station revenue was $3.00 per month ($3.00 times 500 stations equals $1,500.00)—the new average is $3.50. But what happens as the additional phones are added? Let's say that the new expansion program will produce 10 new business phones (for that field is well saturated now), 100 new residence phones, and 100 new rural phones, for a new total of 710 telephones. When that number of stations is reached, and

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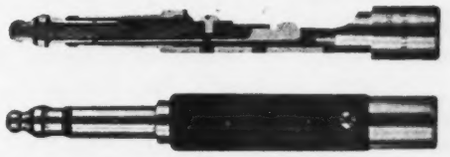

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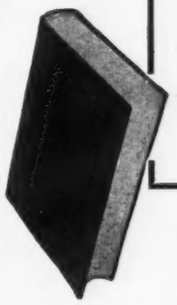
Supervision simplified



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plainly told in this guide to successful methods

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254 pages, 5½ x 8, $3.75

This edition has been rewritten to bring it in line with today's conditions, while retaining the simple, direct treatment of the original volume. Gives many practical suggestions for protecting workers' health and safety, building loyalty and interest in jobs, promoting cooperation, reprimanding effectively, getting across your ideas and instructions by conference training, etc. Includes discussion of the Taft-Hartley Law as it affects the supervisor and an outline for employee participation in management.

TELLS HOW TO

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- Improve employee satisfaction
- handle malingerers
- delegate authority
- teach job operations
- prepare conference plans
- give positive orders
- keep employees informed
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using the $5.50, $3.25 and $2.25 rates, we will have a total monthly rental revenue of $2,355.00. But notice that the average per station has now dropped from $3.50 to $3.31, and that to get back to the $3.50 average, it is now necessary to go back for another rate increase which will add up to $130.00 per month. And, in order to forestall as much as possible the same thing happening again, the $130 probably should be raised by increasing the Residence rates about 25 cents and the Rural about 15 cents. Approximately the same thing could have been done however, by rearranging the increases in the first instance. If the original rate increase distribution had been: Business $4.75, Residence $3.50 and Rural $2.75, then, before the increase of 210 stations, the total revenue would have been $1,775.00 (an average of $3.55 per station), and after the additional stations were installed, the total revenue would be $2,472.00 (an average of $3.48). Thus, instead of having the average revenue per station drop 19 cents per station, the drop would be only 7 cents per station, and would end up (after the new installations) at only 2 cents under the required $3.50, instead of 19 cents under. Commission, public and company would probably all be better off by just having the one increase in rates to contend with instead of two to give the company the ultimate of what it needs. The point is that it is rather important to pay some attention to the distribution of the increase among the several classes and grades of services. Let me not be misunderstood, however, that, in determining the amount and distribution of a rate increase, dilution is the only factor that should be considered. As has been pointed out in previous articles, there are others which should come in for at least as much consideration, and perhaps more—dilution is only one.

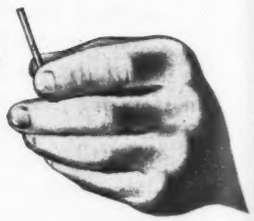
The last, and most serious, dilution process that I want to talk about is the dilution of the value of the common share or proprietorship. The process is taking place to an alarming degree, but, because of the way in which it comes about, and because it is fairly well hidden, the average small company owner may not have given it proper consideration. It is necessary to do some fairly clear and complicated thinking on the subject in order to determine just what is happening to us—the owners of the small companies, that is, the proprietors or the holders of the common stock shares. Even in well managed companies, the dilution is taking place, and the more lax the management, the more completely is the common stock value being "watered down". Management is all to prone to think as follows: "Our subscribers are getting their service for only about 25% more than it cost them 10 years ago, and compared to the nearly 100% rise in everything else, they are getting a bargain. Our employees are getting much higher wages now than they were 10 years ago, so they are at least as well off, relatively, now as they were then. Our stockholders are still getting their 6% dividends, so they should be happy."

That thinking is all right up to the point of the consideration for the stockholders. 10 years ago, let's say, you bought a share of common stock in your company for $100.00. With that $100.00 you could have paid your grocery bill for 3 months, or to get specific, let's say you could have bought 200 pounds of sirloin steak. With your $6 dividend, you could have bought 12 pounds of steak.

But what is your situation now? If you sold your stock for $100 now, you could only buy 100 pounds of steak (and not particularly good steak at that) and your $6 dividend will only purchase 6 pounds. Obviously you are not so well off as you thought. Now what would the company have had to do during those 10 years to protect the purchasing power of your investment. Somehow, of course, the value of your investment on the books should have been increased as much as the average rise in all prices (about double), or saying it in accounting terms, the company would have had to accumulate $10 per year per share of additional surplus, and sometime during that 10 years, would have had to issue a 100% stock dividend.

Saying it another way, if your company did not earn at least 16% on its common shares in each year out of the 10, then you did not get 6% (in purchasing power) by way of dividends. If the company did not earn at least 10% on each common share, you have less purchasing pow-

(*Please turn to page* 88)

Construction
With the Double
and America's
this Nicopress
sleeve

plus
this Nicopress

17-2
tool
make better pair splices
faster than you've ever
made them before!
Pair splices, made the Nicopress wa
can't pull out—and they're made i
half the usual time!
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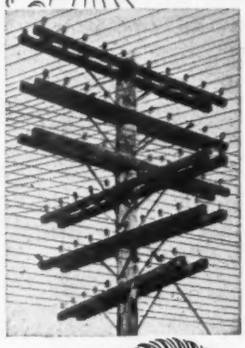

"dependable" *means both the trade-mark & the guarantee of cross-arms by* American Cross-Arm Inc.

The finest pole and wire installation is useless if cross-arms fail. "Dependable" Cross-Arms are all that the name implies—made of sturdy, American woods, long seasoned, fashioned and finished to stand every weather condition from desert heat to mountain blizzards.

In Douglas Fir—Creosoted Yellow Pine or Gulf-Red Cypress.

battery eliminator and ringing supply all in one!

Raytheon's new RectiRingeR*

The new RectiRingeR consists of a time-tested Raytheon RectiFilteR to supply humless, regulated DC power for the switchboard, and an adaptation of an exclusive saturable core reactor to supply 20 cycle ringing power. Field-tested for more than twenty years, these two units are now combined to provide trouble-free power for switchboard and 20 cycle ringing.

The Raytheon RectiRingeR is also equipped with a relay which automatically connects the switchboard to a source of standby power, if the AC power source should fail. Complete specifications on request.

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kennecott telephone cable

is pre-tested to operating company requirements

The construction or maintenance engineer judges telephone cable on three points:

1. Efficiency of transmission
2. Uniformity and quality
3. Long life

Kennecott knows this and, before a foot of cable leaves its mill, subjects it to five critical tests:

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These are everyday specifications. In addition, Kennecott's staff of electrical engineers works constantly to increase the efficiency of its products.

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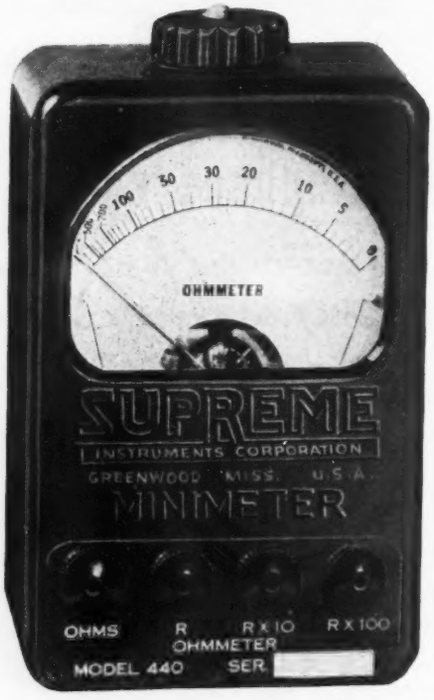
MINIMETERS

SMALL IN SIZE . . . BIG IN PERFORMANCE

by **SUPREME**



The Supreme Model 440 Ohmmeter, a truly "vest pocket" instrument about the size of a cigarette pack, is a favorite companion of telephone men everywhere. Its popularity does not come from size alone. Inside the molded case is a genuine Supreme jeweled meter movement with that famous tough pointer. It is a quality instrument throughout.

Convenient size and durable construction for portability. Built with highest quality materials and workmanship for dependability. Quantity production for a budget price. Write for additional information on the Supreme Model 440 Ohmmeter and other instruments in the Minimeter family.

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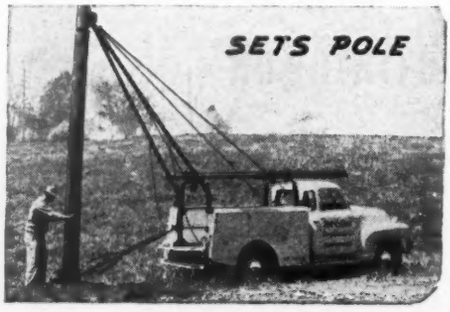

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For 3/4 and 1-TON TRUCKS

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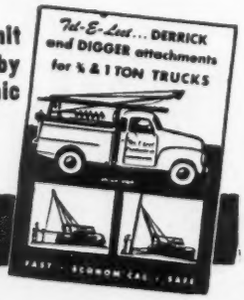
Write for Bulletin 325.

★ **Answers the need for a two man construction crew**

★ **Sets poles up to 35'; takes augers 8" to 20" diameter**

★ **Packaged unit for installation by your local mechanic**



TEL-E-LECT PRODUCTS, INC.

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Small Company Talk

(*Continued from page 86*)

er, including dividends actually paid and the value of your stock, than you started with 10 years ago.

In other words, if the investment capital in your company is all in common stock, you have been needing to earn 16% during each of the last 10 years in order to protect the purchasing power of your investment and to receive 6% in real dividends. If half of your investment capital is money borrowed at 4%, you would still have needed an overall earnings rate of 10% on all invested capital. Even with the classical formula of 25% common stock, 25% preferred, and 50% long term debt (carrying rates of say 6% on the preferred and 4% on the debt) you still need an overall earnings rate of not less than 7½%. So far, also, in this discussion, we have asumed that 6% dividends are satisfactory on common stock, and it must be admitted that there is considerable argument that the common rate should be somewhere between 7% to 10% rather than 6%, in order to provide returns comparable with other common stocks.

Most commissions have come to realize that, on top of the necessary dividends, companies must earn something additional to add to surplus. When you ask for your next rate increase, you do not want to forget that "something additional". For not only is that addition to surplus needed in order to protect the purchasing power of the common stock investor's dollar, but it is needed in order to provide investment capital, and to provide additional equity in the capital structure. Again, it is something that you do not want to forget.

If our telephone soup is being watered, and the evidence all points in that direction, we must first realize in what manner and to what extent the dilution is taking place, and then develop ways and means of preventing it. To have a given amount of soup is not enough—that soup must contain a given amount of nourishment. Neither is it enough for a telephone company to have a certain amount of dollars . . . we must have enough dollars to produce a given amount of purchasing power. —THE END.

Jay G. Mitchell

QUESTIONS AND ANSWERS

Edited By
JAY G. MITCHELL

In this issue Mr. Mitchell discusses—(A) A case of poor transmission on LONG DISTANCE calls (B) An inquiry that is not understood about cable manufacture (C) A cable grip for plastic cable.

QUESTION:—One of our problems is frequently poor Long Distance service on our non-metallic lines despite condensers and repeating coils in all the cord circuits at the switchboard. This drag on the line appears as our operator connects the two parties. I shall deeply appreciate all the help you can give me on this matter.

ANSWER:—This inquiry comes from a city with which, in past years, I had a very close contact. However the type of the equipment presently in service by this telephone company is entirely unknown and, for that reason, it is impossible to offer any definite suggestions until the switchboard circuits in use have been supplied. A request for sketch drawings of the circuits involved is, therefore, going in this same mail to the writer of the question. Because this is a real case of trouble there are one or two suggestions that may be of immediate help. It is assumed that the Long Distance transmission is poor enough to have given rise to complaints from subscribers but, after carefully rereading the inquiry, it seems that poor Long Distance transmission is not in evidence on *all* Long Distance connections but appears, as stated, *frequently*. That is the only cue that is given that can possibly be considered.

On this basis it is my belief that the following action should be taken.

a. List the telephone number and line number of all telephone stations experiencing the poor Long Distance transmission. When this list is available, either in whole or in part, test the batteries at each of the complaining telephone stations if they are local battery telephones as seems likely. While at these telephone stations check the ground rod to make sure that it reaches a permanently moist stratum of the soil and that the ground wire from the telephone instrument is not broken, does not contain unsoldered splices and if in bad condition then renew this wire. While at these telephone stations inspect and clean and check for poor connections the substation protector.
b. Check and clean the central office protector on each of the lines that have made complaint of poor Long Distance transmission.
c. Trim all foliage that surrounds and probably touches the line wire of all the lines that have made complaint of poor Long Distance transmission.
d. Remake all splices in the line wires of the lines that have complained of poor Long Distance transmission. Joints in rusty wire are difficult to make and if the wire is old and rusty it should be renewed and, in any event, splices made should be soldered or made with compression sleeves.
e. Visit the telephone office and make sure that the operator is not leaving the listening key open, to monitor the call or from curiosity, after the connection has been completed.
f. Send me a *sketch of the cord circuits with the code numbers* of the repeating coils and condensers used.

This is a real case of trouble. It is important that all the telephone systems in service be maintained in such a way as to insure the best possible transmission and, for that reason it is to be hoped that the data requested may be supplied without too much delay. Finally this company should make its plans to eliminate the grounded circuits, which is assumed to be the meaning in the inquiry of the expression "non-metallic" lines and to replace such circuits with metallic circuits. Probably the company's rate structure will have to be revised to cover this new and improved plant construction.

QUESTION:—Will you please give me the reason why lead cable manufacturers do not wrap all the wires with a water proof tape or binding so if the lead cable has a crack in it the water proofing tape will not let the water in and get the wires wet or water soaked? An answer will be appreciated.

ANSWER:—This inquiry is not clear because it apparently has been written without any consideration of the many forms of cable that are available for telephone plants. Before attempting to prepare a discussion of the entire subject of telephone cable manufacture and the practices that experience has developed for the maintenance of cable in telephone plant the writer of this inquiry will be requested to amplify the inquiry and place enough information at the disposal of TELEPHONE ENGINEER to make it possible to develop an intelligent reply. Cables are now available which are suitable for use in telephone plants and which do not have an external lead sheath. When and if the special requirements that lie behind this inquiry are received it may be possible to supply the advice that this correspondent so badly needs.

(*Please turn to page* 90)

(Concluded from page 89)

QUESTION:—We are planning on replacing a considerable part of our present open wire with ANKOSEAL cable and we believe that our own line gang can do the work with perfect satisfaction. In installing this ANKOSEAL cable we have carefully considered all factors and wish to follow the most conservative methods even if doing so may involve us in somewhat higher construction costs than would possibly be the case otherwise. We are planning on installing one run of about 2,500 feet in length, fifty pair #22 B&S. Gauge. Since this is a fairly large cable it is planned to pull it through rings on a messenger of the conventional type.

We would like to pull this entire length of cable without cutting it if possible but our people feel that to pull such a length of rather large cable would be difficult if not impossible. All the schemes that we have tried involve damage to a short piece of the cable due to the attachment of the clamp for the pulling line. In other words it appears to be the fact that a few feet of the cable will be damaged seriously enough by the clamp attachment to make it necessary to cut this part off entirely even though this cable is much lighter and more flexible than the corresponding conventional type. Any suggestions that you may make will be gratefully received. Stamped and directed envelope is enclosed for your reply direct.

ANSWER:—This very intelligent inquiry is one of a number that have come to QUESTION AND ANSWER recently which are related to the placing of ANKOSEAL cable in the local service outside plant. It is our belief that the conventional cable construction practices may be followed with perfect confidence when this excellent lightweight cable is being placed in the plant. There are some differences, of course, between the placing of this cable and the conventional type but if conservative methods are used it will be found to be very satisfactory and the experience gained will be applicable to future cable plant in which this cable is to be used.

In answer to the direct inquiry it may be said that one telephone company, which has in-place a large amount of ANKOSEAL in its many offices, reported to QUESTIONS AND ANSWERS that the most satisfactory form of clamp for pulling this cable is the type known as THE FLEXIBLE CABLE GRIP. This is a woven tube which slips over the end of the cable and contracts in diameter when the pulling strain is put on it. These FLEXIBLE CABLE GRIPS can be obtained from your supplier. There is some difference between this type of cable grip for aerial cable and for underground cable, however, so it is necessary when ordering to clearly specify the work in which it is to be employed when placing your order.

Cable terminals adapted for use with plastic covered cable are also now available and may be purchased from the suppliers of the conventional type of terminal. A description of your experiences installing this rather long run of fifty pair aerial cable would be of general interest.

QUESTION:—Will you please write an article on CHARACTERISTIC IMPEDANCE as we have trouble in reaching a reasonably clear understanding of the expression in some of our reading.

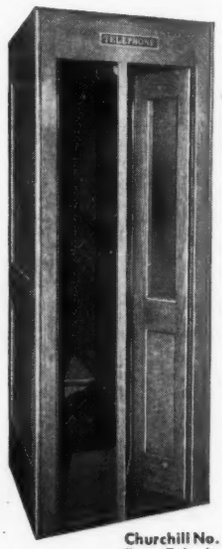
ANSWER:—This is a very important subject for any one engaged in the supply of modern communications but it will have to be deferred until an early future issue as the editors have assigned only so much space to QUESTIONS AND ANSWERS in this number. You may depend on an article however before too long. Thank you for writing for it.

QUOTE

"'We advocate an immediate and drastic reduction of government expenditures by abolishing useless commissions and offices, consolidating departments and bureaus and eliminating extravagance, to accomplish a saving of not less than 25 per cent in the cost of the Federal government.' To refresh your memory, that was a plank in the Democratic platform just 20 years ago when FDR was nominated for his first term as President."—*Brownsville (Pa.) Telegraph.*

Construction M

With the Double
and America's



The churchill ventilated telephone booth

Churchill No. 100 Folding Door Telephone Booth

Attractive—available in two finishes to harmonize with any interior. Included as standard equipment are electric light and automatic electric ventilator.

Users appreciate the comfort and privacy of a Churchill telephone booth—operating companies find it profitable.

Constructed as a single unit and equipped with reinforced back panel for mounting a wall telephone or coin collector.

No. 100-A—Selected white oak, in light or medium oak satin finish.

No. 100-B—Birch, mahogany finish.

Overall height is 84¾"; width, 30½"; depth, 30½". Shipped knocked down and crated.

Illustrated literature available.

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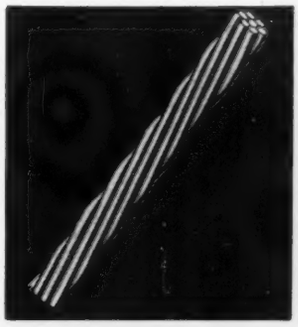
guy and messenger galvanized strand

The superior tensile properties inherent in steel are used to full advantage in *Crapo* Galvanized Strand. The tightly adherent zinc coating applied by the *Crapo* Galvanizing Process provides lasting protection against corrosion, and prolongs the life of the strand. Controlled ductility makes *Crapo* Strand easy to work and to serve. Low first cost and low yearly cost result in important economies for operating companies.

The all-round dependability of *Crapo* Galvanized Steel Strand is being demonstrated constantly by its outstanding performance in service. There is a size and grade for all practical needs.



LONG LIFE—LOW COST

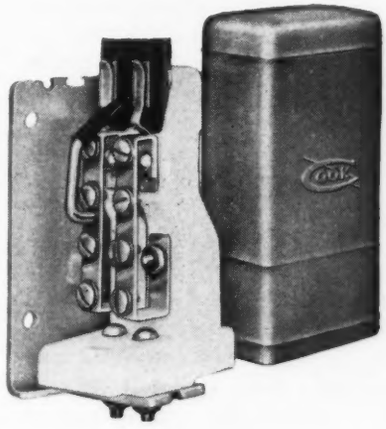
24-hour guaranteed direct current, with electrox battery eliminator

Model PA-05004
Electrox Battery Eliminator

Designed specifically for the Operator's Circuit on Magneto Switchboards, the PA-05004 type illustrated guarantees current even if your AC fails!

When operating from 110 volt, 60 cycle lighting circuit, it delivers a constant, humless direct current. If the alternating current supply fails, a built-in Power-off Relay automatically transfers the operator's circuit to stand-by dry cells.

Other models available for Lamp Signal (PBX) and Automatic (PAX) systems. Products of Rectifier Division, Schauer Manufacturing Corp.



The illustration above shows unit with cover removed.

Mfd. by Cook Electric Co.

the new cook party line junction

(PROTECTED)

Here's an ideal unit for terminating and protecting the cable pair drop, the cable pair, and distributing four party line drops.

Circuit consists of ground stud, a pair of true gap lightning arresters, cable drop studs and heavy busses each equipped with four screw type terminals. Easy to install. All drop wires are doubly protected when used in conjunction with Cook substation protectors.

6 strategic locations

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American Bar Group Analyzes Lag In Rate Relief Determination

SIGNIFICANT analyses of the impact of the lag in regulation agencies in rate relief determinations and of inflation upon depreciation accounting were presented respectively by California Public Utilities Commissioner Harold P. Huls and Assistant General Attorney George J. Eder of the International Telephone & Telegraph Corp. before sessions of the Public Utilities Section of the American Bar Association's annual convention last month in San Francisco.

Three meetings of the Section were staged on Sept. 15 and 16, with the principal address on communications given by Fletcher Rockwood of Portland, Ore., attorney for the Pacific Telephone & Telegraph Co., who discussed and reviewed the Charleston telephone separation plan. Participating in the section's council meeting were President Donald Power of the General Telephone Corp. and Illinois Bell General Counsel K. F. Burgess.

Present Value Should Be Basis Of Depreciation Accounting

WITH THE keynote in his address on "depreciation—and inflation" Mr. Eder keynoted the principle that present value ought to be the basis of depreciation accounting methods. He declared that required accounting methods misrepresent utility earnings to the extent of at least a half billion dollars a year and that, even if costs go no higher than they are today, the investment in public utility stocks has already been confiscated to the extent of over $5 billion.

Mr. Eder stated that "piecemeal confiscation" is taking place in the telephone industry today and in other utilities. He pointed out that telephone equipment, which cost $250 a station less than 10 years ago, costs double that amount today, and when a company is allowed to charge depreciation expense only on $250 it means a confiscation of 50% of its investment, even if costs go up no higher than at present. He said that because retirements and replacements are piecemeal, because of the continued telephone plant expansion and because "superlative management and maintenance have stretched depreciation accruals" the actual facts of confiscation are hidden in a maze of figures.

Mr. Eder said "the problem is where to find the money to replace the present equipment when the shareholders realize that half of their investment has gone down the drain." He declared that there are some who see bankruptcy and government ownership as a perfectly acceptable and inevitable solution, and that economists whose books and testimony have been widely cited by the regulatory bodies admit their "ultimate ideal is government ownership."

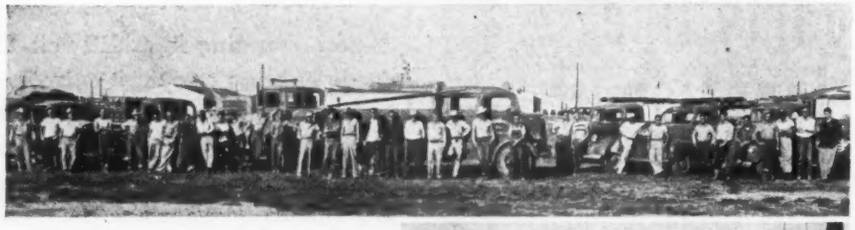
Mr. Eder recapitulated "guidepost" U. S. Supreme Court decisions on

(*Please turn to page 94*)

We're Working for Uncle Sam, Too!

We're proud to do our part in the defense program. The Neale Construction Company has been chosen by the Government for a number of outside plant construction jobs. And we have bent every effort to complete all our defense assignments in record time.

In the coming year there may well be still more defense work for us to perform. However, our telephone company customers may rest assured that we are still fulfilling our contracts for new construction, maintenance and emergency repair on time. We will be quick to notify you, if a defense contract will necessitate any postponement in scheduling work for you. You understand, of course, that vital communications for the defense of our country must come first.



These fine Signal Corps photographs show the men and equipment of the Neale Construction Company on the job at Fort Hood, Texas. Top picture shows the Neale Cable Spinner in operation. Center shows the full complement of Neale personnel assigned to the job. Bottom shows a crack Neale crew and their modern construction equipment.

Call on Neale for any outside plant job. All work done to A.T.&T. specifications unless otherwise specified. Our trained crews are backed by complete engineering and procurement service.

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ENGINEERING • CONSTRUCTION • MAINTENANCE
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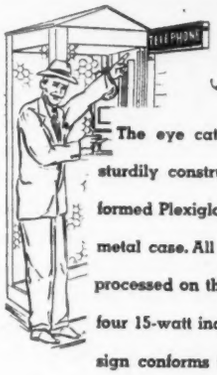
A SIGN OF GOOD SENSE

. . . AND DOLLARS TOO!

OUTDOOR-OD-1



Illuminated

The eye catching OD-1 shown above is an outdoor sign sturdily constructed to withstand all kinds of weather. The formed Plexiglas faces of this sign are enclosed in a galvaneal metal case. All lettering is white on telephone blue background processed on the inside of the face. The OD-1 is illuminated by four 15-watt incandescent lamps and is 100% waterproof. This sign conforms to all Underwriter's outdoor specifications and comes equipped with a heavy-duty hanging bracket. Dimensions of sign are 7 3/4" high and 24 1/16" long.

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Our By-Word

T. R. MILLER MILL CO., INC.

TREATING DEPT.

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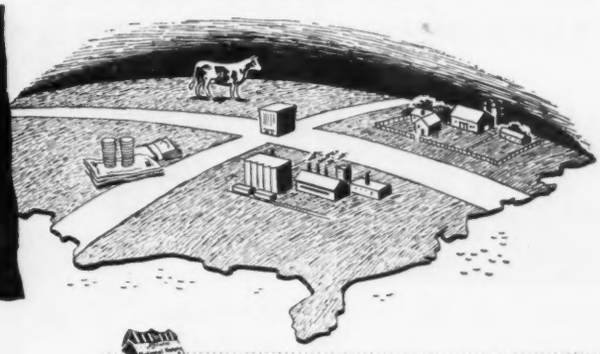

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HOTEL TRAVIS	Dallas
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HOTEL GALVEZ	Galveston
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CORONADO COURTS	Galveston
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400 to 35,000 watts. A.C. or D.C. models.

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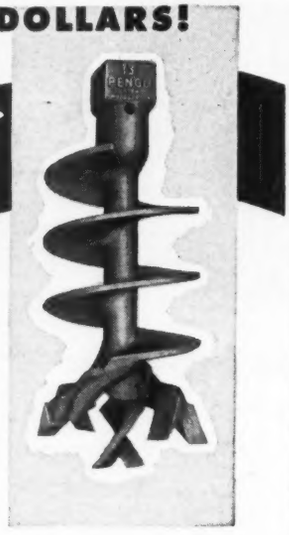

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- ★ Uses same fast-cutting replaceable PENGO Pilot Bits and PENGO Wisdom Teeth used on all PENGO Earth Augers and PENGO Cutting Heads.
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depreciation accounting principles such as the Illinois Bell and Hope Gas cases—particularly the Brandeis and Hughes opinions—which laid down the law that the primary purpose of depreciation accounting is to provide for replacements. He stressed that the Supreme Court, while it held for original cost as needed in those particular cases, did not limit depreciation to that method but aimed to maintain the integrity of the utility investment.

Citing that the burden is on the utility companies to show special circumstances warrant a new approach to utility depreciation, Mr. Eder stated that "the simplest, most sensible solution" was proposed by the Southern Bell in the Georgia and Alabama rate cases. The Southern Bell proposal, he stated, was to continue basing depreciation accruals on cost, but supplementing them by charging as an expense the difference between the original cost of the property retired in a given year and the average replacement cost of that property in that year. But the two state commissions, he pointed out, turned down the proposal on the grounds that it was not sanctioned by good accounting principles, or federal regulatory agencies.

Mr. Eder declared that "For the situation in this country with only two-fold inflation—50% confiscation —the problem could be met by monthly accruals to a currency depreciation reserve to take care of the difference between the original cost of property and the estimated current cost, not just of the plant retired —as in the Southern Bell proposal— but based on the entire plant, the same as the accruals for depreciation."

Commissioner Huls, in his discussion of regulatory lag, pointed out that some state commissions have attempted to establish rates to give recognition to attrition. He said that when a rate of return is decided on, these commissions, "realizing that utilities in the past actually have not experienced that rate of return, due to increasing capital investments to meet their enlarging customer demands, and increasing expenses, have made an allowance for that attrition by adding various fractional percentage points in the return. By this method, at least some if not all of the deterioration in the return which otherwise would occur has been prevented."—THE END.

News Briefs

Continued from page 32)

tual Aid Telephone Co., an REA-financed co-op.

INWOOD, W. VA.—The Berkeley Telephone Co. of Thomas has been authorized to take over operation of the Inwood Telephone Co., which serves 325 customers at Inwood and seven other towns in Berkeley county.

The Berkeley company agreed to assume the debts of the Inwood firm, amounting to about $725, and will make only a token payment for the physical assets of the company.

Doublas W. Miller, president of the Inwood company, testified at a commission hearing that the company owners wanted to get out of the telephone business because its property was deteriorating and revenue was insufficient to bring service up to minimum standards.

The company, founded in 1921, has served the towns of Inwood, Bunker Hill, Rideway, Gerrardstown, Glenary, Arden, Dartville and Mills Gap.

LADYSMITH, WIS.—The Wisconsin Public Service Commission has authorized sale of the Rusk County Rural Telephone Co. to the Wisconsin Telephone Co.

The order provides that the transaction must be made by Dec. 31, 1952, if not earlier, and that the Wisconsin Telephone Co. apply its Ladysmith exchange rates in the area served by the Rusk County Rural Telephone Co.

The 1951 annual report of the Rusk county telephone firm to the commission was as follows:

Cost of telephone plant, $26,825.31; depreciation reserve, $9,009,69; contribution in aid of construction, $4,968.81.

New Co-op Formed At Milford, Ill.

PLEDGES TO organization capital for a new cooperative telephone company to serve Milford, Stockland and Woodland, Ill., are progressing satisfactorily according to Gaylord Adsit, of Milford, chairman of the committee.

Authority to proceed to organize the co-op was given at a recent meeting when those present, without a dissenting vote, agreed to give the investigating committee power to organize.

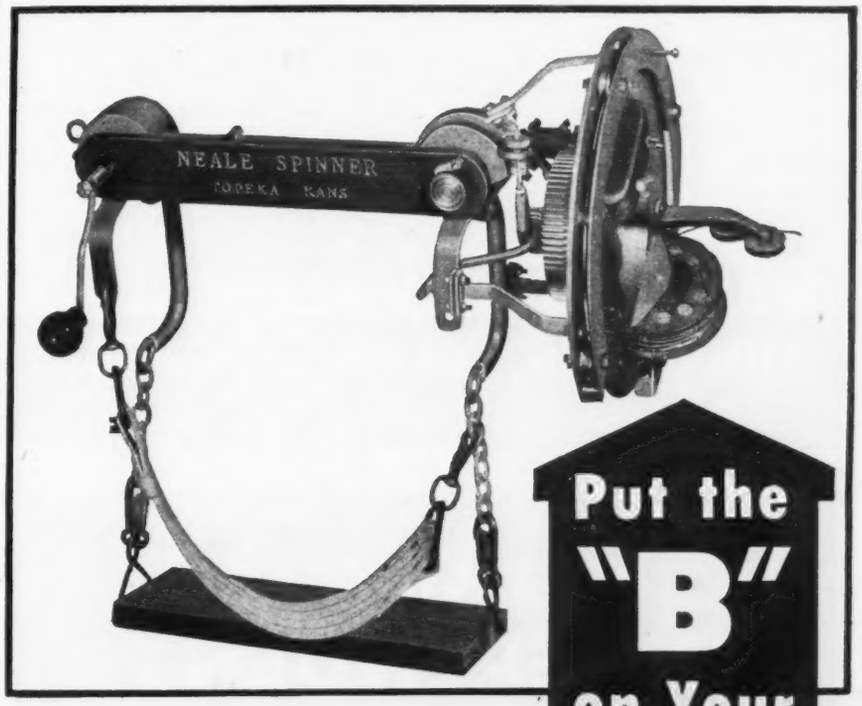
Claude R. Wickard, of Washington, D. C., administrator of the Rural Electrification Administration was present at the meeting and spoke at length on the advantages of the REA co-op plan.

Wickard revealed that REA had surveyed the communities represented and that it would be possible, if the officers of the new association and the membership should so vote, to get a grant from the REA of approximately $450,000 for further expansion of service once the organization was formed and operating.

Lincoln T&T Announces Personnel Changes

SEVERAL important changes in managerial positions of the Lincoln (Neb.) Telephone & Telegraph Co. have been announced by Merle M. Hale, vice president.

Max C. Walker has been appointed district manager for the Eastern District, which is composed of most of the company's exchanges in Seward, Butler, Saunders, Cass and Otoe



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The Neale Model B is designed for one-man operation. It may be used with equal effectiveness for spinning new cable or maintenance spinning of existing cable. This machine is easy to transfer at pole . . . simply by removing the gate in the spinner head. Many telephone companies . . . large and small . . . have reported success in using this cable spinner to reduce outside plant costs and solve problems of new construction and maintenance.

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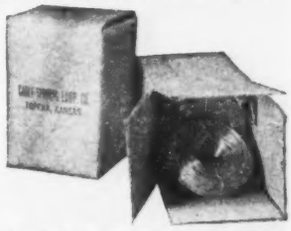

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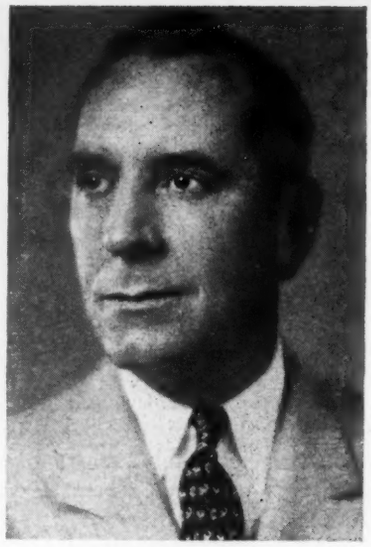


Max C. Walker

counties. He succeeds Thad C. Cone, who was fatally injured in an automobile accident near Peru on August 30. Mr. Walker began his telephone career in 1926 as apprentice switchman at Lincoln. He was transferred to Hastings as switchboardman in 1929. For the next ten years he occupied various positions in the plant department and in 1939 was made Hastings wire chief. He returned to Lincoln in 1948 as central district plant manager.

Succeeding to the latter position, now vacated by Mr. Walker, is Charles B. Meshier, formerly southern district wire chief. Mr. Meshier returns as head of the same department in which he began his telephone work 41 years ago. In building his splendid background of experience he has held the positions of Lincoln chief testman, manager

Chas. B. Meshier

of the Havelock and Fairbury exchanges, area commercial manager at Hastings, area manager at Tecumseh and district wire chief with headquarters at Beatrice.

In other promotions announced by Mr. Hale, Dan W. Smith, area manager at York, has been appointed district wire chief, Beatrice; Sterling G. Nelson, area manager at Auburn becomes area manager at York; Glenn L. Oglesby, manager at Wymore was advanced to area manager at Auburn; M. J. Danaher, manager at Milford to manager at Wymore; and Charles H. Kermoade, combinationman at Seward to manager at Milford.

Television Telephone Not Far Away

EVER BEEN caught in the bathtub when the telephone rang? Today, at least, you have the security of knowing you'll be heard, and not seen, as you splash your way to answer. Not so a few years from now if some of our television research prophets are right—for they're predicting both video and audio two-way communication in every home that has a phone.

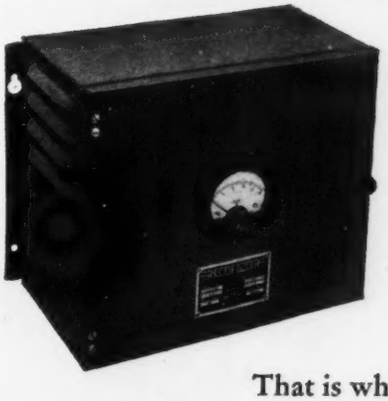
Television telephone is really not too wild a dream. Recently, a new wired television system called Vericon was announced in the U. S. It differs from commercial television in that its images are transmitted by coaxial cable, instead of broadcast through the air. The system is being used right now in fields like medical training, jet motor manufacture, and by the U. S. Army for the defusing of live bombs.

Take a look at a few applications now in operation. The Medical School

Vericon system is being used for medical training.

DC voltage for inter-communication and public address systems aboard famed Burlington Zephyrs is supplied by RectiFilteR. This compact unit is stowed away aboard Vista Dome coaches and dining cars where space is at a premium. It's the ideal equipment for the job.*

WHERE DEPENDABILITY COUNTS



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That is why telephone companies everywhere demand Raytheon RectiFilteRs*. They know the dependability of this equipment that has been tested and proved through years of experience . . . that eliminates the need for storage batteries . . . that provides automatically, closely filtered and stabilized D. C. output voltage at low cost . . . that releases charging cable pairs for revenue-producing service. Its application means economy in space, in maintenance, in operation. Complete details upon request.

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RAYTHEON PRODUCTS INCLUDE RectiChargeR* battery chargers; RectiFilteR* battery eliminators, Voltage stabilizers (regulators); Transformers; Radio, Television, subminiature and special purpose tubes and other electronic equipment. *Reg. U. S. Pat. Off.

of the University of Kansas has installed Vericon as a regular surgical training technique which permits dozens of students sitting in an auditorium hundreds of feet away from the operating room to observe delicate operations. U. S. Army Ordnance Engineers have found this wired television system invaluable in the work of defusing live bombs and projectiles.

For several years they have been using a remote control wrench for this delicate operation, while a Vericon camera sends a picture of what is happening over a cable into a bomb-proof shelter. By watching the television screen they can operate the remote control mechanism—thus eliminating a hazardous task that could mean death even for experts.

A spectacular example of wired television in use recently took place in a west coast jet and rocket manufacturer's plant. This company had developed a new jet motor at a cost that ran into six figures. In preparing for its first ground test, engi-

(*Please turn to page* 100)

"If Great White Father keeps spending U. S. money so fast, we can buy the country back dirt cheap!"

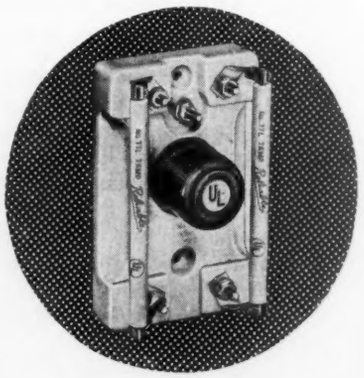
ARMY NEWS photograph received by the Stromberg-Carlson Co., Rochester, N. Y., shows one of its BD 97 field switchboards on active duty in Korea. The picture shows Corporal Eugene B. Howe, Long Beach, Cal., testing one of the many telephone lines of the First Calvary Division in Korea. Formerly a telephone company central office installer before entering the Army, Corporal Howe currently is wire chief of the telegraph and telephone section of the First Cavalry's 13th Signal Company.

Construction M

With the Double
and America's

individual station protector

reliable 955A



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The very simplicity of the Reliable 955A is assurance of long, trouble-free service. Fuses are mounted on a one-piece, low absorption porcelain, well spaced for convenient connecting. Reliable Self-cleaning Sawtooth Discharge Blocks are standard, dissipating static without time lag or danger of grounding the line. The 955A uses No. 77L, seven ampere ceramic fuses.

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on Materials and Supplies . . .

Guarantee of Stromberg-Carlson Leading Manufacturers . . .

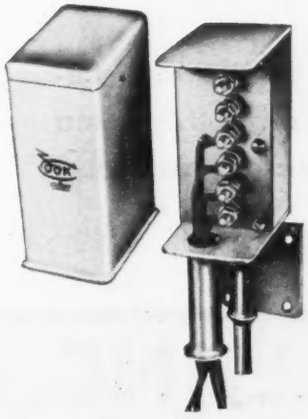
for shorter drops . . . less bracket lines

cook 3-pair XB terminal

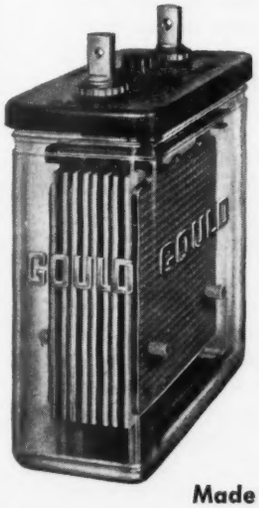
An addition to the well-known XB family of unprotected terminals, this development provides far better, more economical means of subscriber distribution out of rural cable.

The 3-pair XB Terminal was especially designed to reduce to a minimum all factors that would cause high resistance and the possibility of line leakage and maintenance. Hence the heavy, close-fitting welded zinc cover; the noncorrosive Monel faceplate on which are mounted the highly insulated cable studs; the use of the flanged tube as an entrance for drop wires. This tube can be completely sealed after the drop wires are installed.

The new Cook Terminal measures 7½" high, 3¾" deep and 2½" wide. It is furnished with or without cable stub, to user's specification.



the battery that lasts practically forever



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In the Planté, *all* of each positive plate is pure lead, containing *no* antimonial impurities. Thus, Gould has eliminated the primary cause of self-discharge, capacity losses and shortened battery life. Planté batteries float at constant voltage and maintain rated capacity all their life. Because they almost never need service, maintenance is negligible. If you would cut battery costs to a minimum, choose Planté.

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the modern, all-plastic, lightweight telephone cable . . .

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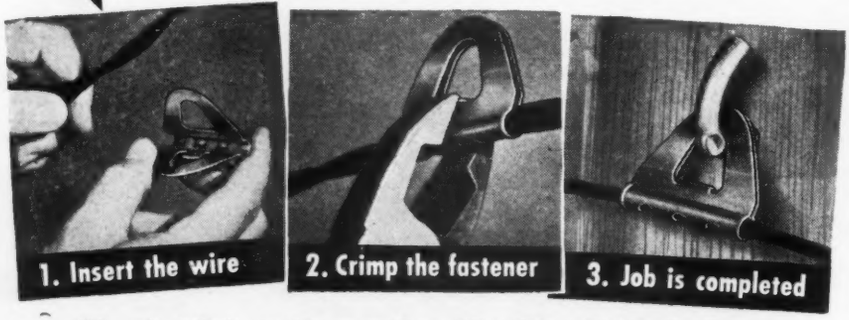

When installed, the Kearney Drop Wire Clip will stay in place. The wire is completely enclosed so that it cannot fall from the clip. It avoids spot loading, too, because it grips the wire over the entire length of the clip.

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neers calculated that there was a definite explosion hazard. To protect themselves, and still see what was happening, they devised a concrete wall and a system of mirrors that would permit them to watch the motor from the other side of the barrier. They also installed Vericon, in addition to the mirrors, on an experimental basis. Thirty seconds before this initial blast of the motor, all employees were ordered to stand behind the wall. Almost at the instant that the jet was to fire, the man at the television screen noticed a fuel leak in one of the valves. The detail was too small to be detected in the mirrored image. The test was instantly halted and repairs were made—saving almost certain destruction of the expensive jet prototype.

What can we expect tomorrow from wired television? One scientist, William Norvell, foresees the probability that a housewife will be able to phone her favorite department store and examine merchandise as it appears—in color—on her telephone's viewing screen.

He also conceives of a student in California who will be able to study archives of the Smithsonian Institute in Washington, D. C., simply by dialing "long distance." One of the world's greatest department stores is thinking of installing Vericon cameras around its floors to watch for shoplifters. Another researcher suggests the possibility of an arrangement with your local movie house whereby you'll be able to dial them and watch the evening show in the comfort of your own living room.

Dick Tracy wasn't the first policeman to think of television as a weapon against crime. The warden of a big western prison is considering a Vericon installation. His idea is to have a camera scan the room where inmates and their visitors meet, in order to prevent smuggling of contraband articles. Along the same lines, he feels it might be possible to have a single guard monitor several Vericon screens, connected to cameras along the prison walls.

Other uses? Mr. Norvell reports that hundreds of suggestions have been received for new uses for wired television. He says they include ideas like monitoring in tunnels and on bridges, and for signature identification in banks or retail stores. His prize suggestion came from a woman who wanted to know how much it would cost to have two-way television between her husband's office and their home. Hubby is the owner of a model agency.— THE END.

W. C. FISHER has joined the sales engineering service section of the Lenkurt Electric Co., San Carlos, Calif., where he will be concerned primarily with applications of carrier channelizing equipment for point-to-point radio systems.

Before joining Lenkurt, Mr. Fisher was vice-president of Norwesto Communications Ltd., Kenora, Ontario. Previously he had been district sales engineer for the Winnipeg office of RCA Victor Co. Ltd. From 1940 to 1945 he served as a Wing Commander in the signals branch of the Royal Canadian Air Force.

Mr. Fisher received his B.Sc. and M.Sc. degree from the University of Saskatchewan and did post-graduate work at Purdue University. He is a member of the Association of Professional Engineers of the Province of Manitoba.

Acker Drill Co. Announces New All-Purpose Digger

A NEW, ALL-PURPOSE digger designed and built by the Acker Drill Co., Inc., Scranton, Pa., was exhibited for the first time at the recent

(*Please turn to page* 103)

New all-purpose digger introduced at USITA Convention.

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saves you time and money

- easier to handle
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(Continued from page 101)

Convention of the United States Independent Telephone Association.

The new digger will bore holes up to 16" inches in diameter. For portability, the entire unit can be either Jeep-mounted with power take-off from the Jeep engine, or skid-mounted with it's own source of power. When skid-mounted, the entire unit can be easily transported on a small truck. The spindle mast can be quickly raised or lowered to traveling position by hydraulic control.

The drill head is hydraulically operated and has a built-in reverse and neutral, thus eliminating the need of a separate clutch and transmission.

Operation of the digger is simplified to the extent that only two finger tip controls are required. A completely sealed hydraulic system keeps out dirt. For rugged operation, the digger spindle is octagonal in shape, 2½" across the flats. With only five moving parts in the drill, normal wear and service are reduced to a minimum.

Joins Automatic Electric's Sales Engineering Staff

THE APPOINTMENT of William J. Phillips as staff sales engineer for Automatic Electric Sales Corp. has been announced by L. H. Warner, president of that company. Mr. Phillips comes to his new position from the Automatic Electric Laboratories, where he has recently been serving as an engineer in the Product Design Section, and with the benefit of a prior extensive background in central office equipment installation and engineering. In his new capacity for Automatic Electric Sales, he is taking over the duties formerly assigned to the late James Engh, handling the sales, engineering and service contacts with the operating companies of the General Telephone group.

Mr. Phillips is a native of Minnesota, and studied at the universities of Minnesota and Alberta. He entered the employ of Automatic Electric Company in 1937, and after some months of service in the factory attended the Automatic Electric Training School as a preliminary to two years of installation work in the United States.

Early in 1941, Mr. Phillips was assigned to go to Pearl Harbor to

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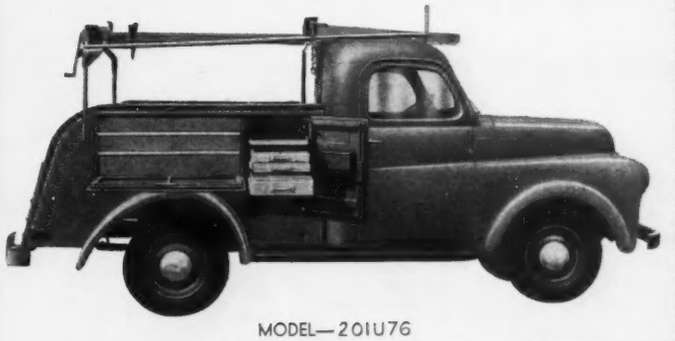

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1952...OUR 60TH ANNIVERSARY YEAR

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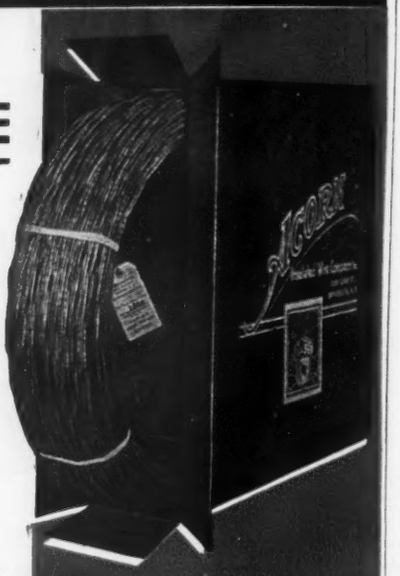

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★ Twin helix—no back thrust!
★ Bores true, clean holes in any soil, most sandstones and hardpans, frozen ground, permafrost!
★ All wearing parts replaceable on job!
★ Made in 15 sizes, 10" to 54" hole diameters, to fit all makes of heavy-duty earth boring machines. Larger sizes on order.

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★ Easy installation — welds to your present helix.
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It knows how to bore holes"

Quick-replaceable, drive-on *PENGO Wisdom Teeth are cast from special abrasion and shock-resistant steel alloy; give far longer service life! Used on all PENGO Augers and Cutting Heads.

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WILLIAM J. PHILLIPS

supervise the installation of automatic exchanges for the United States Navy. Soon after the outbreak of the war, he was placed in charge of a special communications section set up by Automatic Electric under contract with the Navy. He served in this capacity until 1946, and for this work was given the Navy's Meritorious Civilian Award.

After his return from Pearl Harbor, Mr. Phillips supervised automatic central office installations at Montevideo, Uruguay; and at Park Ridge, Illinois. During his recent work in the Laboratories, he has been principally concerned with the development of Directors and Automatic Toll Ticketing equipment, and their practical application to telephone company needs.

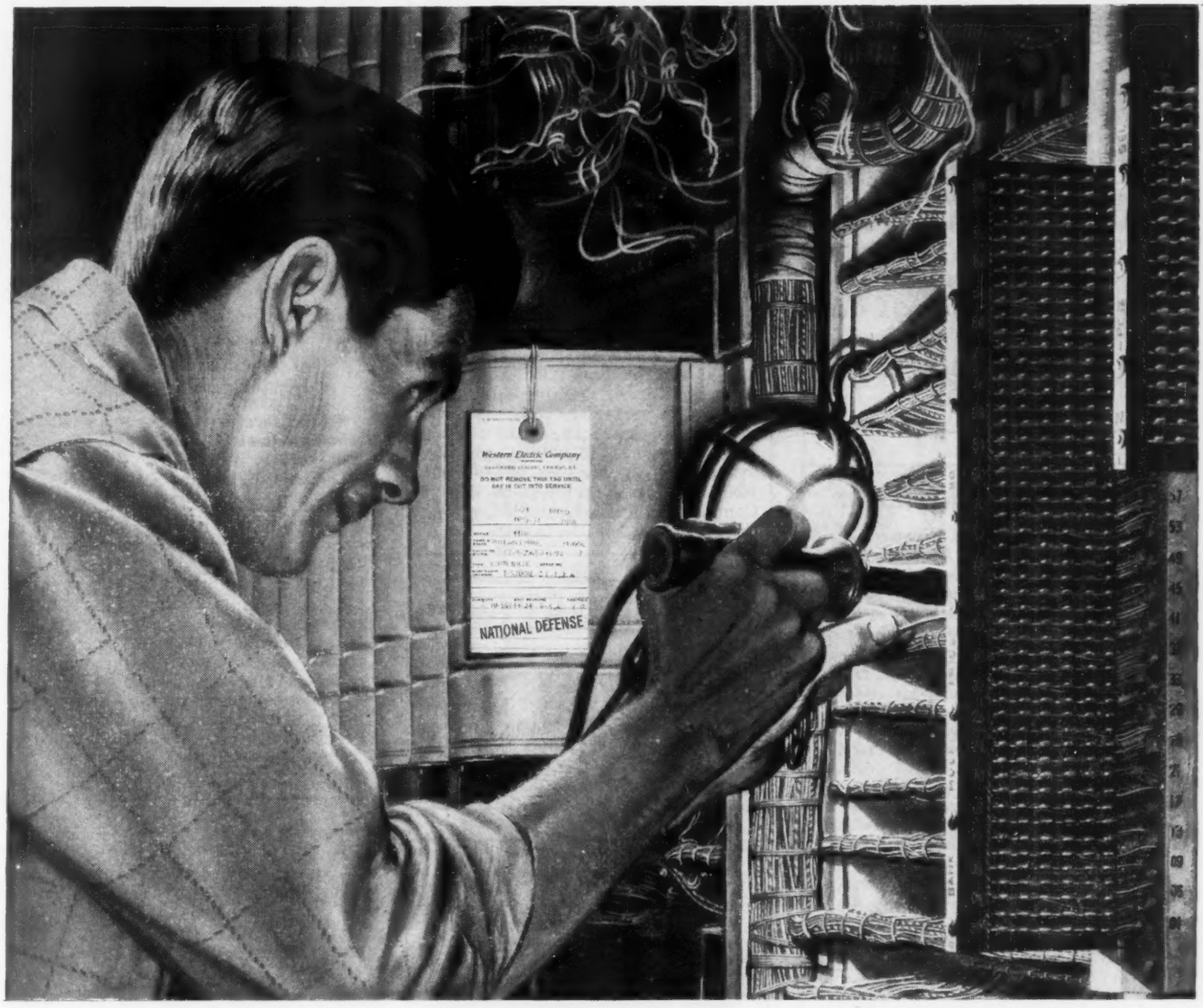
A. E. Strong Completes 50 Years of Service

FIFTY YEARS in the telephone business—as installer, chief inspector, foreman of switchboard, telephone and radio assembly and coil winding departments, and later as plant superintendent—were rounded out by Albert E. Strong, September 8, when he celebrated the half-century mark with Kellogg Switchboard & Supply Co., Chicago, an associate of International Telephone & Telegraph Corp.

Mr. Strong claims he might never have gone into the telephone busines had he not "fallen in love with a telephone" as a boy in Vail, Iowa. His father, the late Albert L. Strong, owned the only local telephone sys-

(*Please turn to page* 109)

Another muscle in America's arm



HERE'S a Western Electric installer. He's connecting more telephone equipment at an aircraft plant so more war planes can speedily be put into our skies. Each telephone added, every new bank of equipment installed, makes America stronger.

At Western Electric we're working hard at the urgent job of producing these things. That's been our regular job for over 70 years.

But beyond this, the specialized skills gained in a lifetime of telephone work are now more and more being called on by America's Armed Forces. For them we are making such electronic marvels as radar fire control systems for anti-aircraft and naval guns, for bombers, for guided missiles.

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This is a new position in company created by expansion. It is an excellent opportunity for the right man. Salary open. Address all correspondence or communications to Lucian W. Spencer, Gen. Mgr., North Plains Telephone Co., Dumas, Texas.

TRAINING SUPERVISOR

Required for medium sized toll exchange in Great Lakes area. Must be fully experienced in toll operating practices. 5 day, 40 hour week Vacation with pay, Christmas bonus, free sickness and life insurance. Good prospects for early advancement for right person. Apply giving full details of experience, educational background. Enclose recent photo or snapshot. Box 8803, c/o Telephone Engineer Publishing Corp.

For Best Results Advertise in Telephone Engineer & Management

MANAGERS: For two large Telephone Cooperatives in Northern Middle Tennessee. Must have administrative ability. Technical, plant and commercial knowledge and experience absolute requirement. Furnish complete details of education, experience and references. One headquarter in rapidly growing town, 1800 population. One headquarter in town of 1000 population. One cooperative of 4000 subscribers, $1,750,000 plant; the other 3000 subscribers, $1,000,000 plant. Address replies to North Central and Twin Lakes Telephone Cooperatives, Inc., Lafayette, Tenn.

MANAGER: Permanent position with opportunity for expansion and salary commensurate with qualifications. Must assume complete managerial responsibilities for rapidly expanding Midwest exchange of approximately 10,000 instruments in town of 25,000. Box 8805, Telephone Engineer Publishing Corp.

ENGINEERS WANTED

Juniors—With at least two years experience in outside plant design.

Seniors—Ten (10) years experience at least. Can use rettired men in good health. Also one or two (1 or 2) First Class Linemen or retired foremen.

Salaries will be adequate, plus insurance and yearly bonus. Past working records must be clean. Positions will be permanent. Write Box 8797, Telephone Engineer Publishing Corp.

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Jobs immediately available. Steady employment with excellent opportunities for advancement for capable linemen, cable splicers, splicer's helpers and combination men.

Replies are strictly confidential and should include details of experience, objectives and availability.

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WANTED—Salesman to cover Missouri and Kansas for telephone supply house on commission basis. Car furnished. Box 8783, Telephone Engineer Publishing Corp., 7720 Sheridan Road, Chicago, Ill.

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Excellent opportunity with large public utility for systems man having good public utility accounting background and knowledge of functions of punch card equipment and accounting machines. Must be able to deal with top executives.

Please furnish resume which will be held in strict confidence. Liberal salary. Box 8802, Telephone Engineer Publishing Corp.

HELP WANTED—MANUAL Central Office Equipment Installers and Dial or Manual Central Office Repairmen wanted. Supervisory and non-supervisory positions open. Attractive salary, working conditions, pension plan and other benefits. Excellent opportunity for advancement. State age, experience and send small photograph. General Telephone Company of Illinois, Illinois Building, Springfield.

TRAFFIC SUPERVISOR — Class A telephone company operating approximately 33,000 stations located in the Middle West. Must have experience in Manual and Automatic Central Office and have capacity to train and direct personnel in all phases of traffic work. Write giving background and experience to Box 8799, c/o Telephone Engineer.

HELP WANTED—Combinationmen—Opening for qualified journeymen—permanent position, good working conditions, employees benefit plan, opportunity for advancement. Replies should include details of past employment and experience. Write South Carolina Continental Telephone Co., Sumter, So. Carolina.

CENTRAL OFFICE PERSONNEL experienced with Strowger and manual equipment. Employment affords opportunity for early advancement. Replies are strictly confidential and should include details of experience, objectives, etc. Write the Union Telephone Company, Owosso, Michigan.

Business Opportunities

BUSINESS OPPORTUNITY for aggressive individual willing to make investment and assume complete charge of setting up sales force for young and growing telephone supply company. Furnish education, experience and personal information in reply to box 8782, Telephone Engineer Publishing Corp.

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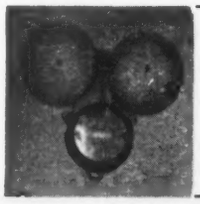

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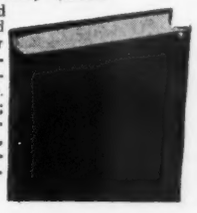

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The 802 has "Packaged Part" components that assure on the spot replacement. (Equipped with Type A.E. #24 dials when specified.)

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TELEPHONE EXCHANGE—Ill health forces sale of privately owned 116 magneto exchange located in good black land farming area. Good toll business. J. T. Orfield, Brandon, Texas.

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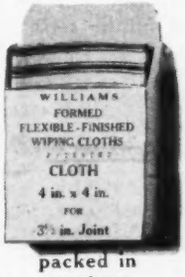

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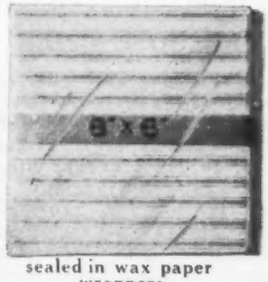

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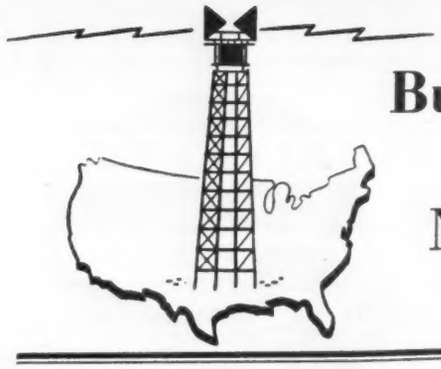


The Buyers' Directory *and* New Products' Showcase

ADVERTISING, Directories—General Telephone Directory Co., 604 Pine Ave., Long Beach, Calif., and 185 N. Wabash, Chicago, Ill.—**[ADV. 1]**

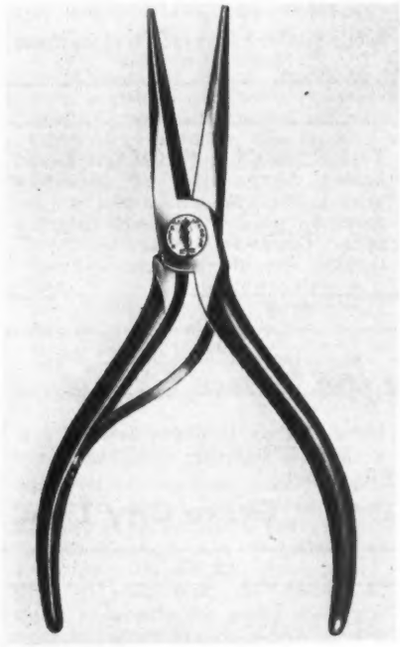
BELTS — CLIMBERS — COMPLETE LINEMEN'S EQUIPMENT, W. M. Bashlin Co., Bashlin Bldg., Grove City 1, Pa.—**[ADV. 2]**

BELTS — CLIMBERS — PLIERS — SAFETY STRAPS—CONSTRUCTION TOOLS. Klein & Sons, Mathias. 3200 Belmont Ave., Chicago 18, Ill.—**[ADV. 3]**

BOOTHS—Acoustic Telephone—Sherron Metallic Corp., 1202 Flushing Ave., Brooklyn 6, N. Y.—**[ADV. 4]**

BRUSH & WEED KILLERS—Thompson manufactures many types of brush and weed killers. Write for helpful information on specific problems. Thompson Chemicals Corp., St. Louis 3, Mo.—**[ADV. 5]**

CABLE, All Plastic, Aerial, Duct, Direct Burial, PBX, Switchboard.—The Ansonia Electrical Co., Ansonia, Conn.—**[ADV. 6]**



LONG NOSE PLIER

A new long nose plier of more compact design is now available from Mathias Klein & Sons, Chicago.

This new plier is similar, except in size, to the standard Klein long nose plier and is especially designed for use in confined quarters. The long jaws are knurled at the end to insure a positive grip when pressure is applied. A replaceable tempered steel spring keeps the plier in open position for immediate use without the necessity of opening by finger. Also available without the leaf spring if preferred. For further data check New Product 451.

CORDS, Switchboard, Instrument and Operators—Commercial Cord & Supply Co., Inc., 26 Main St., Clifton Springs, N. Y.—**[ADV. 7]**

CORDS, Switchboard & Telephone—Runzel Cord & Wire Co., 4727-31 Montrose Ave., Chicago 41, Ill.—**[ADV. 8]**

ELECTRIC HOT WATER HEATERS. Thermostatically controlled for any hot water heater, Vulcan Electric Co., Danvers 17, Mass.—**[ADV. 9]**

FURNACES—For quickly and economically melting lead and paraffin—Mutual Liquid Gas Equipment Co., Inc., 3600 W. Imperial Highway, Los Angeles, Calif.—**[ADV. 10]**

INSULATORS, Porcelain—Porcelain Products Inc., Box 300, Findlay, Ohio.—**[ADV. 11]**

LIGHTWEIGHT PULLERS—Coffing Hoist Company, 800 Walters St., Danville 5, Ill.—**[ADV. 12]**

PIPE PUSHERS—Giant Manufacturing Co., South 6th St., at 12th Ave., Council Bluffs, Iowa.—**[ADV. 13]**

POLE HOLE DIGGERS—For derrick mounted trucks. Tele-E-Lect Products, Inc., 9613 Minnetonka Blvd., Minneapolis 16, Minn.—**[ADV. 14]**

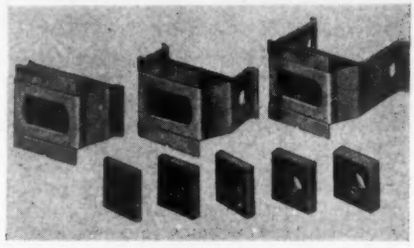
POLES, Southern Yellow Pine—Colfax Lumber & Creosoting Co., Inc., P.O. Box 23, Pineville, La.—**[ADV. 15]**

POLES, Southern Yellow Pine—Taylor Colquitt Company, 290 E. Main St., Spartanburgh, S. C.—**[ADV. 16]**

POLES, Southern Yellow Pine—Texas Creosoting Co., Orange, Texas.—**[ADV. 17]**

PROTECTIVE EQUIPMENT—Reliable Electric Company, 3145 Carroll Avenue, Chicago 12, Ill.—**[ADV. 18]**

REBUILT TELEPHONE & SWITCHBOARDS—Telephone Repair & Supply Company, 1760 Lunt Avenue, Chicago 2, Ill.—**[ADV. 19]**



ADJUSTABLE INSERT FOR CONCRETE

A new type of fully adjustable insert for use in concrete is saving time and labor on many installations. Developed by Super-Grip Anchor Bolt Co., Inc., the insert eliminates time consuming "fishing" to get the bolt started in the nut after the nut is placed in the insert. The combination of the elongated hole in the face of the insert and offset hole in the nut makes it possible to put the nut on the bolt before placing in the insert and then to adjust it to any point of the compass.

The Super-Grip fully adjustable inserts have other advantages: they will support a load of 1500 to 2400 lbs; V-shaped notches in the face and two center grooves on the side simplify alignment of the insert on the forms; four small holes in the insert permit placing it on dowl pins or reinforcing rods. For additional information check New Product 452.

TRUCK BODIES—Highway Trailer Co., Edgerton, Wisc.—**[ADV. 20]**

WIRE DROP & INSIDE—Jackets of neoprene, rubber or plastic. Lowell Insulated Wire Co., Lowell, Mass.—**[ADV. 21]**

WIRE, Insulated—DATED DROP WIRE—Neoprene or Weatherproof—Alphaduct Wire & Cable Co., Milltown, N. J.—**[ADV. 22]**

WIRE, Insulated Drop and Bronze or Copperweld—Acorn Insulated Wire Co., Inc., 36 Freeman St., Pawtucket, R. I.—**[ADV. 23]**

WIRE, Insulated Drop, Genuine Ironite—Paragon Electric Co., Two Rivers, Wis.—**[ADV. 24]**

WIRE, Insulated Drop, HT Bronze, Paraprene or Braid Insulation—Paragon Electric Co., Two Rivers, Wisc.—**[ADV. 25]**

WIRE, Telephone, for all inside and outside uses—Whitney Blake Company, New Haven, Conn.—**[ADV. 26]**

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Telephone Engineer Publishing Corp.
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Please forward complete information on the following products and services described in the October, 1952 issue of TELEPHONE ENGINEER AND MANAGEMENT. (Check information desired.)

NEW PRODUCTS

NP 451..... NP 452.....

SERVICES AND SUPPLIES

ADV. 1..... ADV. 2..... ADV. 3..... ADV. 4..... ADV. 5..... ADV. 6.....
ADV. 7..... ADV. 8..... ADV. 9..... ADV. 10..... ADV. 11..... ADV. 12.....
ADV. 13..... ADV. 14..... ADV. 15..... ADV. 16..... ADV. 17..... ADV. 18.....
ADV. 19..... ADV. 20..... ADV. 21..... ADV. 22..... ADV. 23..... ADV. 24.....
ADV. 25..... ADV. 26.....

Name ..... Title.....

Company .....

Street Address .....

Town ..... Zone..... State.....

ALBERT I. STRONG

(Concluded from page 104)

tem in town—a two-line system connecting the Strong General Merchandise store with the family home. And during the late 80's and early 90's, the young Al learned the fundamentals of telephone operation along with repair and maintenance of the system!

Strong was honored at a company-sponsored luncheon Sept. 8 with Kellogg company officers, headed by President James H. Kellogg, as hosts. He was presented with a television set and the company's diamond service pin.

Beginning in the telephone business with Kellogg as a "messenger boy-engineer trainee," Mr. Strong soon was on the road as an installer's helper. One of his first jobs was to help in the addition of lines to the magnificent big switchboard (largest Independent telephone company board in the USA) that Kellogg had installed five years previously in St. Louis.

For several of those early years, Mr. Strong worked on installations of Kellogg equipment in Kansas and Missouri, in Buffalo, N. H., Philadelphia, Pa., New Brunswick, Canada, Great Lakes excursion boats, the Pan American exposition in St. Louis and many others.

Currently, Mr. Strong is in charge of Special Assignments for the Works Manager's office at Kellogg. Fascinating as the telephone business was in the early days, he spends little time in looking back. "That's the wonderful thing about this telephone business," he says, "it's always growing and you never stop learning!"

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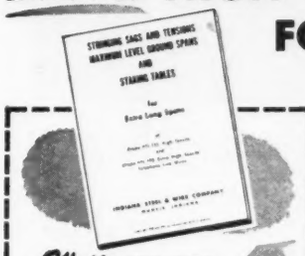

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Crapo HTL-190 has been developed specifically to meet the need of the telephone industry for *extra* long span construction of rural lines. It is designed especially for use where telephone circuits and power lines are to occupy the same pole structures. *Crapo* HTL-190 is applicable to the construction of open wire lines, where terrain and other conditions permit *extra* long spans, and for river crossings.

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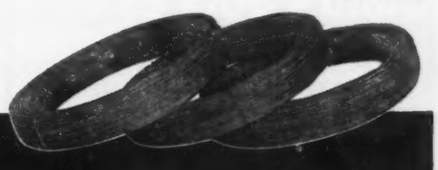

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Charlton Resigns As Highway Trailer President

THE RESIGNATION of H. L. Charlton as president and director of the Highway Trailer Co., Edgerton, Wis., was submitted by him and accepted by the Board of Directors recently, Oliver H. Payne, board chairman, has announced. Mr. Payne, who is also chairman of the board of the Autocar Corp., Ardmore, Pa., and of Liberty Products Corp., Farmingdale, Long Island, N. Y., will continue as chairman of the board of the Highway Trailer Co., and will succeed Mr. Charlton as president of the company.

Frank C. Gokey, executive vice president, was elected a director to fill the vacancy created by Mr. Charlton's resignation. He will assume the responsibilities of chief executive officer of the corporation.

FRANK C. GOKEY, newly-elected director of Highway Trailer Co.

In accepting Mr. Charlton's resignation the board of directors commended him for his excellent performance during his term as president of the Highway Trailer Co. Members wished him continued success in his future activities.

Mr. Gokey has been with the company for more than 25 years. He is a native of Edgerton.

He started his career in the organization in the company's plant and then moved into sales. Under his leadership the company's public utilities equipment division has developed into a major segment of the business. The company today ranks as one of the largest suppliers of this type of equipment along with its commercial truck trailer and tank operation.

Mr. Gokey is a member of the Society of Automotive Engineers and is considered an authority on public utility equipment.

At various times during his service with the company, Mr. Gokey took an active part in domestic and import sales, manufacturing, engineering, general administration and labor relations work. During World War II he worked closely with the Government in developing special equipment for the U. S. Signal Corps and Army Corps of Engineers.

Mr. Charlton, the retiring president, was for 25 years associated with Reynolds Metals Co., Louisville, in executive capacities. On October 18, 1950, he succeeded E. A. Menhall as president of the Highway Trailer Co.

Oliver Iron & Steel Announces Personnel Changes

B. W. JOHNSON, general manager of sales, Pole Line Hardware Division of the Oliver Iron & Steel Corp., has announced the following personnel changes:

(1) C. R. Dudley, former Southeastern District Representative of Atlanta, Ga., has been transferred to Dallas, Texas to assume the duties of Southwestern district representative and will headquarter at the corporation's office and warehouse, 150 Howell Street, Dallas, Texas.

(2) Arthur P. Stanton succeeds C. R. Dudley as Southeastern District representative in Atlanta, Ga.

(3) Edward S. Norwood has been appointed South Atlantic district representative for the corporation and will make his headquarters in Raleigh, N. C.

The activities of these representatives will be supervised by G. M. Daly, Southern Sales manager of the company's Pole Line Hardware Division in Birmingham, Ala.

Union Carbide Advance Arthur C. Bryan

ARTHUR C. BRYAN has been appointed vice-president in charge of sales for National Carbon Co., a Division of Union Carbide & Carbon Corp., according to an announcement by A. S. Johnson, National Carbon's president.

STROMBERG | CARLSON

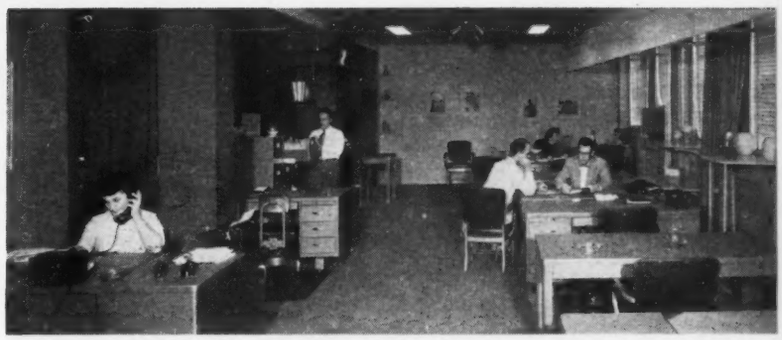
transmitter

Published by the makers of famous XY Equipment

VOL. 1, No. 7, OCTOBER, 1952

Stromberg-Carlson Credit Corporation

A Helping Hand for the Small Company



Office of the Stromberg-Carlson Credit Corp.

THIS is a real life story from the files of the Stromberg-Carlson Credit Corporation. It could be taking place in Texas, Oregon, South Carolina, Washington, Georgia; actually it did take place in Ackerman, Mississippi.

Mr. Earl McDonald, manager of the Ackerman Telephone Company, faced the same situation confronting countless small and medium-sized companies—a good product to sell (telephone service), steadily increasing demand (plenty of held orders), available sources of supply (the independent telephone manufacturers), and lack of funds to finance capital investment in a new plant.

Mr. McDonald is representative of that group of Independents—a large percentage, company-wise—which are the backbone of the industry; intelligent, industrious folk trying to improve service to the community and also build an equity for their families. When they sought capital financing from banks, the term necessary for payout was too long. The usual source of extended-term financing—insurance companies—were not interested in general because the principal amount was too small. This was the hurdle that had to be cleared before any real modernization program could be undertaken.

Courage and vision were requirements when in 1947 Earl McDonald purchased the Ackerman exchange.

Personnel of the Telephone Finance Department are, l. to r., Lee Pittinaro, secretary; George E. Gordon, legal counsel; Harold W. Moonen, financial analyst; R. D. Shoemaker, field engineer; Robert M. Meyers, administrative assistant; Mary Holland and Margaret Dwyer, secretaries; Phillip J. Lucier, Manager; and Howard E. Phelps, field engineer.

Bill Corman, in his feature "Small Company Talk," appearing in Fortnightly Telephone Engineer for October, 1951, gave a vivid and very readable word picture of the situation: 182 subscribers who had never expected much from their magneto service, nor were they anxious to pay higher rates. But, having given up his semi-monthly pay check and risked his own security and that of his family in the venture, Mr. McDonald set about to make this company an investment for the future.

With the blessing of 85% of his subscribers, he began with the outside plant and then improved the old switchboard to the point where the better service justified higher rates. This was just the beginning of a long range plan—a plan in which he enlisted the enthusiastic support of the townspeople for modern dial service. And it was at this point that the Stromberg-Carlson Credit Corporation—established for the sole purpose of aiding men like Mr. McDonald—entered the picture.

The amount needed to purchase dial equipment and new telephone instruments for this one company was too large for local financing and too small to be of interest to the larger commercial institutions. Furthermore, it would be several years before the accumulated net savings in operating

cost would be sufficient to liquidate the capital outlay. But because there are many companies in just this same position, their loan requirements can be lumped into one basket and the entire amount can be economically financed and administered. The Stromberg-Carlson Credit Corporation offers just that sort of service.

When Ackerman, Mississippi, cut over to XY Dial in July 1952, it represented two things: first, the fulfillment of a sound plan for a modern, efficient exchange that is geared to the future; secondly, it is the realization of the purpose for which the Stromberg-Carlson Credit Corporation was created—aid to the small company in the one field (finance) where they need assistance most.

In 1949, Stromberg-Carlson initiated its Telephone Finance Program for telephone expansion and rehabilitation. Since then the demand for such service has greatly exceeded the ability to satisfy requests. The Telephone Finance Department has been expanded in the recent past and is once again being increased. Patience on the part of those making application for financing will bring its reward.

One Stromberg-Carlson service deserves particular mention. In addition to the direct loans which have been granted, there are many cases where companies have been *directed to other means of financing more favorable to them.* In one case, the Credit Corporation field engineers made a complete survey of the physical property. The finance team spent considerable time going over the books and advising on the latest accounting practices. The prospect for underwriting a very sizeable loan was most attractive. But, because of this accurate survey and the *clear cut picture* of the company's financial position which was now known, Stromberg-Carlson was able to place the loan with another lending agency on what were very liberal terms for this particular operating company. Their modernization program is now under way.

Credit, broadly defined, is "Man's faith in his fellow men." Stromberg-Carlson has always believed in this premise. Because of its intimate knowledge of the telephone business, it has over the years been able to help deserving companies where others would not. The success of the Stromberg-Carlson Telephone Finance Program depends upon the good judgment of the men who administer its funds—on their ability to size up a situation and weigh the facts against similar cases of need. Who are these men?

Phillip J. Lucier is Manager of the Telephone Finance Department, with general supervision over both investigation and administration of loan cases. He is a member of the three-man loan committee which screens applications. He is also Manager of the Stromberg-Carlson Credit Corporation. For several years before assuming his present position, Mr. Lucier was the Stromberg-Carlson telephone representative traveling Florida, Georgia, Alabama and Mississippi.

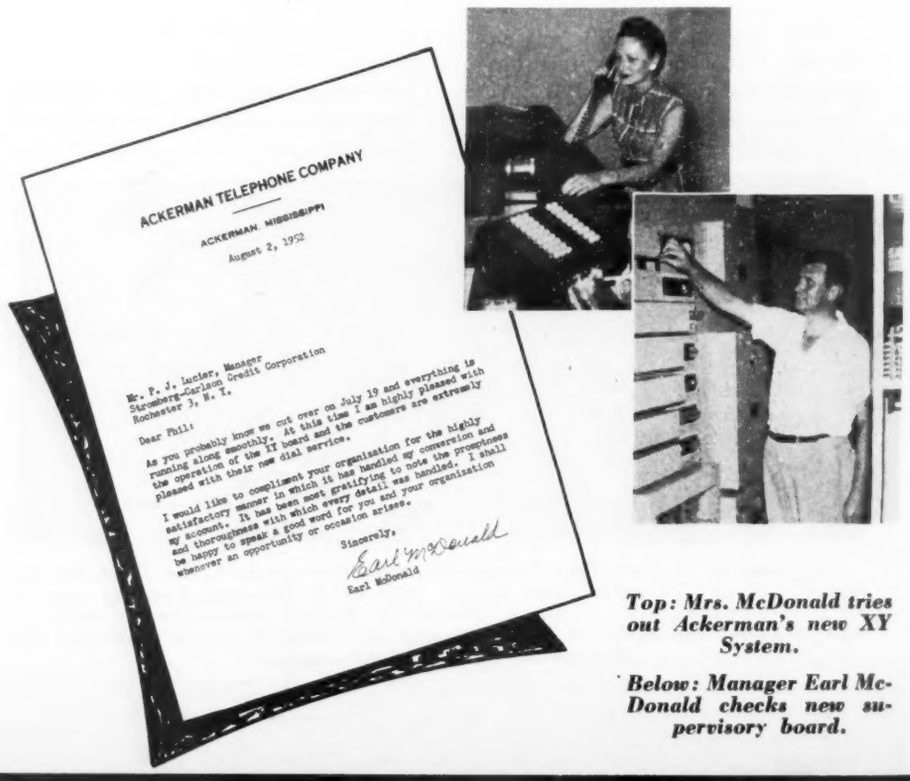
Randolph D. Shoemaker was the first Field Engineer appointed to make surveys for companies interested in financing. His experience in telephone installations, engineering and sales, covers several decades and all sections of the United States as well as foreign countries. Telephone men enjoy talking over their plans with a man of such broad experience.

Howard E. Phelps started with Stromberg-Carlson as an Engineer and was later transferred to National Sales Engineering. Now as a Field Engineer he travels extensively in the East and Southeast. He shares the state of Texas with Mr. Shoemaker, who covers most of the remaining states. The Pacific Coast companies are still surveyed by the Engineering staff of the San Francisco office.

Robert M. Meyers returned to Rochester from the San Francisco office, where he was Credit Manager, to be administration assistant for the office. He has charge of billings, collections, office records and other administration matters.

Harold W. Moonen has just come from the Chicago office, where he was Credit Manager, to be Financial Analyst. He will assist Mr. Lucier in the analysis and approval of loans, spending much of his time in the field.

The Stromberg-Carlson Telephone Finance Program—designed expressly to fit an urgent need in the Independent Telephone Industry—has already succeeded in its purpose. Ackerman, Mississippi, is a typical example. All present indications point toward increasing service in this field during the years ahead.


ACKERMAN TELEPHONE COMPANY

ACKERMAN, MISSISSIPPI

August 2, 1952

Mr. P. J. Lucier, Manager
Stromberg-Carlson Credit Corporation
Rochester 3, N. Y.

Dear Phil:

As you probably know we cut over on July 19 and everything is running along smoothly. At this time I am highly pleased with the operation of the XY board and the customers are extremely pleased with their new dial service.

I would like to compliment your organization for the highly satisfactory manner in which it has handled my conversion and my account. It has been most gratifying to note the promptness and thoroughness with which every detail was handled. I shall be happy to speak a good word for you and your organization whenever an opportunity or occasion arises.

Sincerely,

Earl McDonald

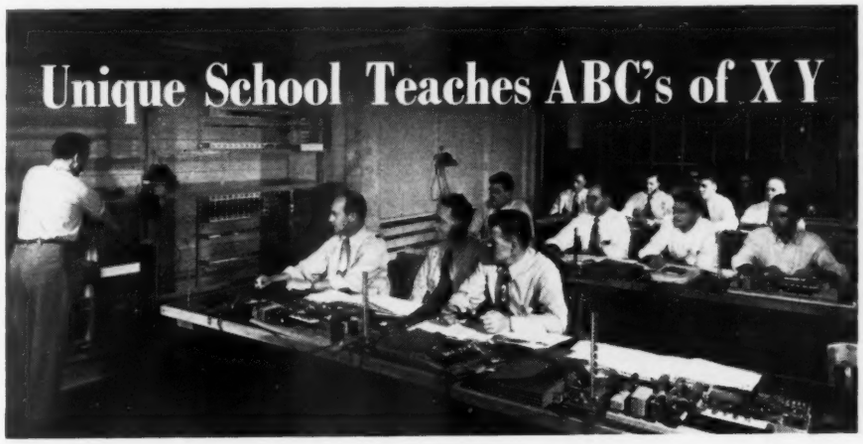
Earl McDonald

Top: Mrs. McDonald tries out Ackerman's new XY System.

Below: Manager Earl McDonald checks new supervisory board.

STROMBERG-CARLSON *transmitter*

Unique School Teaches ABC's of X Y



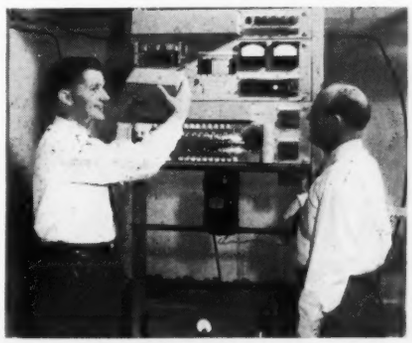
Another regular six-week session of the Stromberg-Carlson XY System School has recently been completed. This is part of a training program for operating company personnel which began twenty-two years ago. The interim period before the next term in January affords the opportunity to review the purpose of the school and the advantages of the training offered.

Dial telephony has brought many advantages; it has also raised new problems which require new methods of solution. The operation of the XY Dial System can be a mystery or a matter of simple preventive maintenance, depending on the familiarity of the operating man with its basic principles and adjustments.

Invitations to attend the XY Training School are made to key personnel in companies which have installed XY equipment. No charge is made for instruction, materials, or use of laboratory facilities. In the six-weeks training they work with the regular teaching staff and certain members of the Engineering Department who contribute from their own field of specialization.

Purpose of this training is to "show how an ounce of prevention can save a pound of cure." There is a basic program which combines lecture-demonstration and actual practice in routine maintenance and trouble shooting in the fully-equipped laboratory. All are invited to bring questions which arise from personal experience.

Each student is provided with an XY Switch for his own use during the class period as well as text materials. Portable test sets, relay adjustment fixtures, tools, etc. are used frequently. The classroom equipment has all the elements of a typical XY CDO including line, switching, power, supervisory, and test equipment.



George Killian discusses dial XY operations with J. E. Sutherland of Pilot Rock, Oregon.

Mr. Robert M. Seibert, in charge of Test Engineering, is coordinator. George Killian, Test Engineer, is full-time instructor, assisted by Howard Otterbacher, Telephone Apparatus Engineer. Over-all supervision is by Mr. John H. Voss, Chief Telephone Engineer.

Demonstrating the XY Switch to a class at the Stromberg-Carlson school.

MEET *Phil Lucier*

Phillip J. Lucier, Manager of the Stromberg-Carlson Credit Corporation, needs no introduction to telephone men in the Southeast where, as Stromberg-Carlson sales representative in Florida, Georgia, Alabama, and Mississippi from 1946-1950, he was liked by local managers and respected by competitors. Now he is becoming known to a wider group as he takes to the air—sometimes it's a flying boxcar—to talk over financing problems in the Pacific Northwest, Texas, Kentucky, or perhaps the Carolinas.

Phil understood something of telephony before he learned his alphabet, as he was born into it. His father, Ralph F. Lucier, now President of the United Telephone Company of Warsaw, Indiana, put Phil to work in the plant or out on the lines beginning with his first high school vacation. While taking the finance program at Notre Dame University, he may have realized how intimately the progress of a telephone company is tied in to the financial structure within which it must operate.

1942-46 saw an interruption quite common for young men. Phil entered the Navy Supply Corps, serving on destroyers in the Pacific Theatre and transports in the Atlantic. Before being inactivated he held the rank of Lt. Commander.

It was during the period that he was Stromberg-Carlson sales representative in the Southeast sector (1946-50) that some of the greatest progress in modernization was begun by the independent companies in this area—a forward growth which still is amazing. Phil's present work as Manager of the Stromberg-Carlson Credit Corporation is described in the lead article in this issue.

In 1946 he was married to Marcella Fried of Spokane, Washington. When asked if he had any hobbies, Phil responded with a hearty "yes" and listed them: E'Louise 5, David 4, Suzanne 3, Laurence 2, Therese 1. Shall we also include the Doberman Pinscher?

STROMBERG-CARLSON transmitter

The Thomaston (Ga.) Telephone Co.

Thomaston, Georgia, Points with Pride To Its New 2,000 Line XY System

A new, important chapter in the history of the thriving industrial town of Thomaston, Georgia, was written on September 20, when the Thomaston Telephone Company cut over to its $400,000 dial system.

The story had its beginning on December 20, 1893, when the "Thomaston Telegraph and Telephone Company" was granted a charter with a capital stock of $5000. The charter was granted to Robert A. Fincher, Thomaston; J. J. Fincher, Yatesville; H. D. Fincher and W. T. Fincher, Culloden; and C. S. Fincher of Roberts.

In 1925 the Fincher family sold the company to James L. Kirk, who held it for two years before selling it to W. M. New. At the first meeting of the stockholders, Mr. New was elected President, and on October 28, 1928, the charter was amended to change the name of the company to its present day name "Thomaston Telephone Company."

At the same time as the name change, the capital stock was increased from $5000 to $75,000 divided into shares of $100 each, and by a vote of the stockholders, authority was granted to increase its capital stock at any time to $200,000.

Under the guidance of President W. M. New the Thomaston Telephone Company made much progress. A modern plant was built in 1928, and the company's 600 stations grew to 2000 stations before Mr. New's death in 1944. His widow succeeded to the Presidency of the Company, and Arlie M. New was elected vice president and successor to his father as general manager of the company.

This was eight years ago. Arlie New's first act upon being elected general manager was to begin a survey that eventually led to the Dial System that went into service on September 20, 1952. He spent many long hours working on plant plans and specifications for converting from common battery to dial. These plans and specifications were submitted to several manufacturers. Mr. New traveled thousands of miles studying installations throughout the country and conferring with equipment manufacturers.

"I became firmly convinced that Stromberg-Carlson had the best equipment our money could buy," Mr. New relates. On October 19, 1950, the Thomaston Telephone Company signed a contract for 2000 lines of Stromberg-Carlson XY equipment.

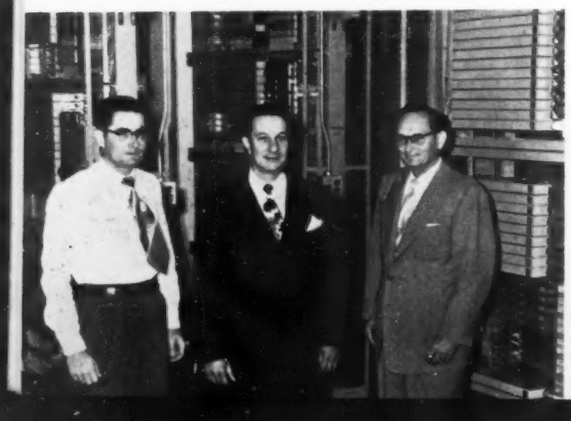
Installation of this equipment in a $70,000 addition to the company's plant has been completed on schedule. The company now has a dial system with 3,500 stations and a waiting list of approximately 500. This is actually, the second dial installation for the Thomaston Telephone Company; a dial exchange with 30 lines in nearby Yatesville, Ga., was put into operation in 1950.

The community was so enthused over news of the dial installation that the election of Arlie New as President of the company on January 17, 1951, was almost overlooked.

In a recent editorial the Thomaston Free Press declared, "The New family has expressed as much confidence in our community as has any other group in the past 25 years, with an investment of nearly a half million dollars for improved telephone service. Arlie M. New has forged forward with a plan to give the people of the community telephone service unparalleled in Georgia.

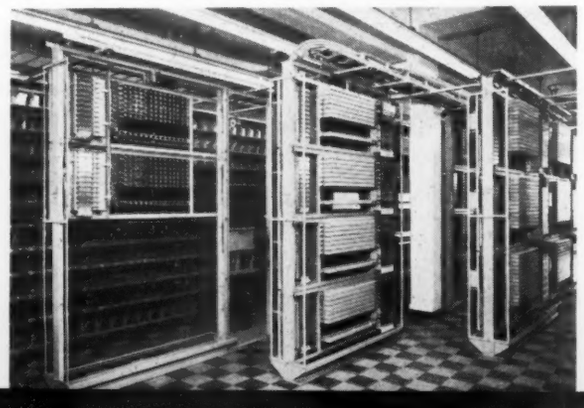
"Nothing has been spared. A new building complete with emergency equipment assures telephone service in any emergency short of a direct hit by a bomb; the finest equipment research could develop and money could buy; management that we have the utmost confidence in."

Stromberg-Carlson Company wishes to join the Thomaston Free Press in congratulations to Mr. New, and appreciation for the wonderful spirit of cooperation which has brought this fine new telephone system to Thomaston.



Arlie M. New, President of Thomaston Telephone Co., (R.) and son Madison New (L.) flank W. L. Mollands, of the Stromberg-Carlson Atlanta Branch

Grading bay and selector shelves in Thomaston dial system. 2,000 lines now — and plenty of room for expansion.



STROMBERG-CARLSON transmitter

Rochester Branch Serves Entire Northeast Section

By D. C. MacMillan, Manager

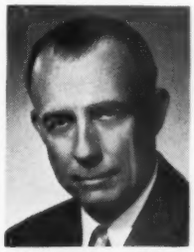
The Rochester Branch of the Telephone Division serves the Independent companies in its area in the same manner as the out-of-town branch offices provide contacts in distant states.

The densely populated states of New York, Pennsylvania, and Ohio, highly industrialized New England and New Jersey, and the border states of Maryland and West Virginia comprise this territory. The area is a stronghold of Independent operation: a tribute to good management which has kept abreast of modern trends. Here is the largest individual Independent operating company—the Rochester Telephone Corporation—with over 200,000 stations.

Let's meet the people who make up the Rochester Branch.

Donald C. MacMillan became manager in September 1950. His service with Stromberg-Carlson began in 1923; prior to this he had attended

Clifton Dasson



John Cornelius

Colgate and Rochester Universities. His first assignment was cable layout and specifications. In 1937 "Don" joined the National Sales Engineering group, serving the Southeast sector; later he served the Rochester and Pennsylvania territories until his present appointment.

John E. Cornelius, Sales Engineer, joined Stromberg-Carlson in 1940 after twenty years with Independent Telephone companies in several states, as superintendent of outside plant, central office equipment, and general plant manager of one group containing forty-five exchanges. This wide experience was immediately put to use in National Sales Engineering. Since 1946 he has done all the field engineering in New York, New England, Ohio, and West Virginia. John is a familiar figure at both state and national telephone conventions. For some time he has been chairman of the planning group for Stromberg-Carlson exhibits.

Clifton O. (Spike) Dasson, the second Sales Engineer, has one of the longest service records in the company. Think of the typical telephone exchange in 1908 and you can visualize the forward steps which he has seen. "Spike" rose through the ranks, sandwiching college courses in with his work. In World War I he served overseas with the Signal Corps. A quarter century later he was again called to serve in the development of radar at Bendix, General Electric, and M. I. T. In his more than 30 years with Stromberg-Carlson, he designed some of the largest manual exchanges. Now he serves the entire Rochester Telephone Corporation group and the States of Pennsylvania, New Jersey and Maryland.

Three sales representatives are assigned to this office:

Emmett L. Shanks came with Stromberg-Carlson in 1940, traveling in Nebraska. In 1947 he was transferred to the states of Pennsylvania, New Jersey, and Maryland, replacing Donald E. Lee who came to the home office to direct the Supply business for the territory. During the terms of these two men, remarkable advances have been made in telephone modernization, particularly in western Pennsylvania.

Christine Lippa

Irene Boland

Robert E. Cleland earned a place in the sales force through his work as an installer and foreman. Because of this work he understands the field problems of operating companies. Bob joined Stromberg-Carlson in 1940. From 1942-46 he was on leave, serving in the Signal Corps. In 1950 he was assigned to sales work in western Ohio; since May 1952, he has had all of Ohio and West Virginia.

Frank C. Crawford learned the telephone business from the inside out. In 1942 he worked in the Production

E. L. Shanks

R. E. Cleland

F. C. Crawford

Control Department, learning the methods of manufacture and the flow of materials. For several years he was Order Editor of the National Telephone Sales group, handling both new orders and those important replacement parts. Five years ago Frank took over the big job of sales representative for all of New York and New England.

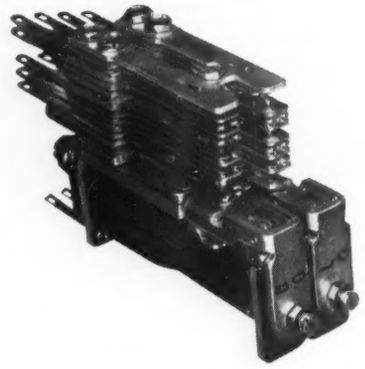
The two girls in the branch office have their own stories.

Irene Boland's service to Stromberg-Carlson was recognized when she was chosen secretary-treasurer of the Quarter Century Club. She has successively been secretary to the Rochester Sales Department, the Vice-President in charge of Sales, and now is secretary for the Sales Engineers.

Christine Lippa is secretary to Donald C. MacMillan, Rochester Branch manager. She came to Stromberg-Carlson in 1943 and was soon selected to work in the Government Contract Department. Shortly after the organization of the Rochester Branch she became secretary to the manager.

With all the advantages of its close contact with the home office, the Rochester Branch coordinates engineering and manufacturing facilities to serve its customers.

STROMBERG-CARLSON transmitter



FACTORY TRIP

Relay armatures, to give optimum magnetic performance, must be given a special heat treatment. Also coil cores must be soft, pure iron if they are to function within critical tolerances. The process of annealing such parts at Stromberg-Carlson is the subject for this month's factory tour.

Semi-Automatic Annealing Speeds Production, Saves Material

The amount and type of impurities allowed to remain in certain basic telephone parts, such as magnetic cores, armatures and relay frames, have a profound effect upon their magnetic properties. The material used for these structures must be "soft"—that is, the parts must have relatively high permeability to give quick-action response and low coercive force which permits quick release.

In order to obtain the desired purity and "softness" it is necessary to anneal the parts—raise to an extremely high temperature with subsequent controlled cooling—in a hydrogen atmosphere that is as pure and as dry as possible. The result is a relay which has uniformity, sensitivity, and reliability.

A new method of hydrogen atmosphere annealing was developed at Stromberg-Carlson and is now used by other large industrial plants. Development work was started in the Materials Engineering Department by Harry Green and carried to completion under the guidance of Howard Squires, Manager of Telephone Production Engineering, by Kenneth Austin, Production Engineering, and Joseph Braun, Tool and Gage Engineering. The processing of annealed parts is under the supervision of William Tiefendahl, department foreman.

Welding Eliminated

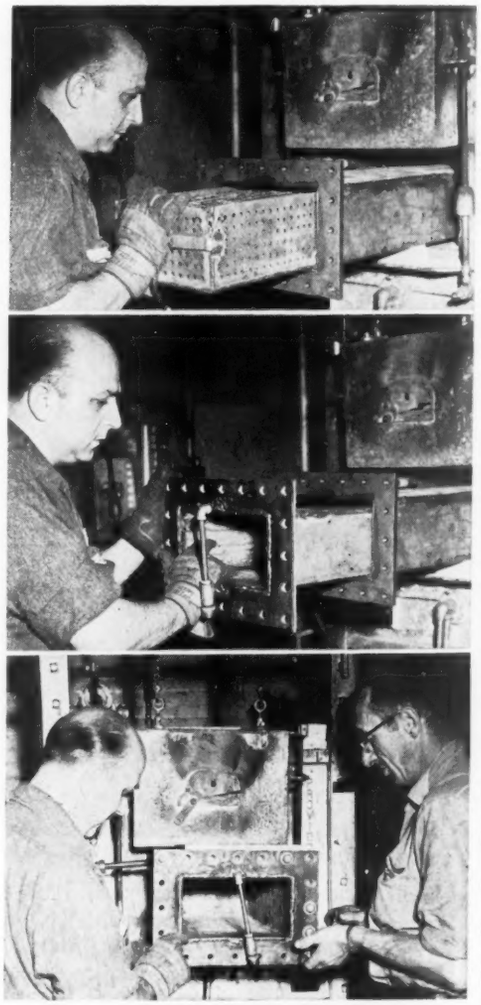
This new procedure is another step along the road to speedier production through improved methods. Old methods, widely used in the metal treating industry, resorted to welding covers on annealing boxes and cutting off these covers after the process was completed. In addition to lost time, the boxes, which were made of very critical nickel alloy, Inconel, were often damaged. Now the boxes are replaced by a furnace insert which extends right into the depths of the furnace where temperatures of 1800° F. are generated.

As shown in the illustration, an uncovered box or basket of parts can be placed in this insert and a "cork" or cover bolted in place as a seal, requiring no welding. A very important consideration today is the conservation of critical nickel alloys made possible in this revolutionary method.

Control System

The annealing process is semi-automatic, with a relay-controlled timing mechanism and safe-guards which operate like railroad signals on the "fail-safe" basis. At the start of the process the hoselines and combustion chambers are cleaned with non-explosive nitrogen. All hydrogen used in firing the furnaces is completely cleared of oxygen and moisture content is reduced to dewpoint of –60°F. maximum, before it circulates through the furnaces and returns to the "burn-off" jet. Temperatures, as well as time, are electrically controlled to very close tolerances. Any deviation from normal is immediately indicated on the control panel and causes an alarm to ring.

Since Stromberg-Carlson fabricates almost all parts used in telephones and switchboards, rigid control of material, punching or turning, and cleaning in proper solutions can be maintained prior to the annealing process. All this adds up to longer life for parts and lower maintenance costs for the operating company.



Top: ***Box of parts is pushed into special insert, which leads into center of furnace . . .*** **Center:** ***Metal "cork" is inserted, sealing box inside insert. Note matching holes on cork and insert, used for bolting cork in place . . .*** **Bottom:** ***Bolts are fastened and annealing can begin.***

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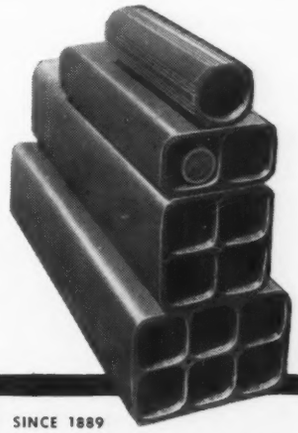

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Plan Now To Attend Your Association's Annual Convention

THE BACK OF THE BOOK

By JOHN G. REYNOLDS, Managing Editor

Dialing Big Government . . .

The Chamber of Commerce of the United States says one way to measure the growth of big government is to glance at your telephone book. The Chamber checked the directories of the nation's 10 largest cities outside Washington, and found 3,375 listings for federal bureaus, departments, agencies, units, offices and other fragmentary installations. State governments have only 1,738 listings in the same cities. The Chamber found 415 federal telephone listings in Chicago, only 158 state listings.

• • •

"How to Cook Muskrat . . ."

THE 'SATURDAY EVENING POST' has been running a series of brief articles, written by Sidney Shalett, showing how your tax money is wasted. A recent one dealt with "Uncle Sam's Book-of-the-Minute Club".

The government, it seems is in the book business on a colossal scale. Some 70,000 different books, pamphlets and periodicals are available from the Government Printing Office. Some are given away, and some are sold—usually at a below-cost figure.

One Senator has stated that Agriculture Department publications alone would make a stack 52 feet high. Among the all-important subjects covered in this mass of literature are "The Cuban Frog Leg Industry," "The Venezuelan Salt Fish Industry," and the book to end all books, "Recipes for Cooking Muskrat Meat."

This is an example of how taxpayers' money is spent on projects which are of interest to an infinitesimal number of people. Government book-publishing, of course, is like everything else in government. Those involved want better jobs and more authority. They want to seem important and, if possible, irreplaceable. So they get out more and more books whether there is any demand or reason for them or not.

There isn't a department of government which isn't honeycombed with waste and duplication of effort. There isn't a department where money couldn't be saved without affecting any essential activity. And the total saving, according to Senator Byrd and other authorities, could be as much as $10,000,000,000 a year. When will a start be made?

• • •

Buck Fever . . .

THE U. S. DOLLAR is on its way to developing an inferiority complex. Canada, you'll recall, used to pay as much as 10 cents extra just to get her hands on our bucks. It's different now. Currently she's only paying about 97 cents for an American dollar, in some spots as little as 95 cents.

As Durante says, it's mortifying

Mexico, too, says that her pesos are getting to be worth more than the fixed rate of exchange for American dollars. They, too, are often discounting our money. But there's no reason quite yet to feel worried. American dollars are all right to have around. And even in their emaciated state, they're still the world's standard of value.

• • •

Job For Dick Tracy . . .

ALL NEBRASKA members of the Northwestern Bell had a letter from General Manager L. O. Arstad explaining why the company has applied for new telephone rates. Almost all, that is. Twenty people in Omaha's Plant assignment department received only a neatly stamped and addressed envelope. No letter. It was a little confusing for them. One girl who probably has been reading too many mystery stories, quickly doused her envelope in a bucket of water. Said she wasn't taking any chances that it might contain invisible stuff that would bode her no good. It was also suggested that empty envelopes might be a tricky communist ruse.

But the service bureau had a more plausible explanation. They said it was terribly hot the day they "stuffed" those letters.

Here is a completely engineered system for L-M Fibre Conduit installations —methods, materials, tools.

Here is the modern efficient system that speeds up underground conduit installations, cuts costs, saves man-hours, eliminates many of the problems of older methods. No wonder so many independent telephone companies are switching to L-M!

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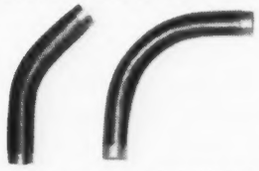
Get the details on the L-M Fibre Conduit system; and ask for a free copy of the L-M Underground Construction Handbook. Ask your Kellogg man; call any of the 87 Kellogg and L-M offices and warehouses; or write Line Material Company, Milwaukee 1, Wisconsin (a McGraw Electric Company Division).



L-M Fibre Conduit, couplings, bends and fittings are accurate, strong, dependable, easy to use.

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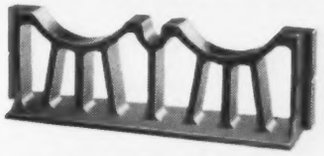

L-M Taper-Tool for use in field or shop, to apply an accurate 2-degree taper to salvage short lengths, cut ends. Shown with L-M Fibre Conduit Vise.

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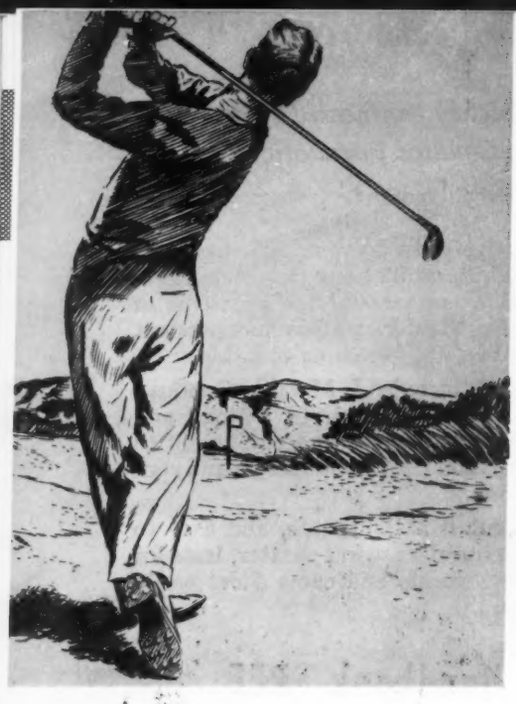


Every golfer's skill is judged by comparison with a universal

STANDARD OF MEASUREMENT

SWEET-SWINGING PROFESSIONALS and rank beginners alike measure their accomplishments in the game of golf, according to an accepted standard, called par. Par is established for each individual golf course in such a way that fair comparisons of performance can be drawn between golfers, regardless of geography or climate.

In nearly every field of endeavor, there are accepted standards of measurement by which relative worth or performance is judged. There are, however, a few outstanding exceptions to this rule. For example, we find that very few Independent Telephone Companies have ever checked the worth of their directories by applying a proven standard of measurement.

LET US ASK YOU JUST ONE QUESTION.

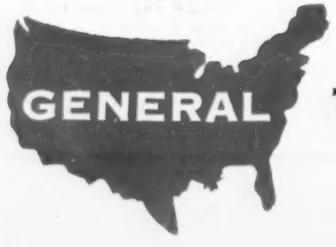
Did you measure the results of your current directory by simply comparing it with your previous issue? Unfortunately, most telephone companies are still following such a procedure.

The records we have compiled from publishing telephone directories which serve more than 4,000 Independent Telephone Exchanges have enabled us to establish positive standards by which we can measure the success of a telephone directory publishing job. Among the standards we have developed are: normal directory revenue per station; normal directory revenue per business account; normal directory revenue per advertiser; and, average number of advertisers per one hundred business accounts.

These established standards, when applied to your current directory, will show you whether or not it was as successful as it might be. And, it will be quite apparent whether or not we can increase your net profit from your directory.

Let us prove the validity of our claim. Send us a copy of your current directory and let us make a study of it without any cost or obligation whatsoever.

Mail us a copy today — you have everything to gain and nothing to lose!



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